TOSHIBA

FILE NO. 020-200321

SERVICE MANUAL

COLOR TELEVISION

N3PSP Chassis

51HX93, 57HX93

(TAC0364) *(TAC0365)*

65HX93

(TAC0366)

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TABLE OF CONTENTS

CHAPTER 1 **GENERAL ADJUSTMENTS**

SAFETY INSTRUCTIONS 3
CRT ASSEMBLY REPLACEMENT AND MOUNTING 4
PICTURE TUBE COMPONENTS ADJUSTMENT 6
REPLACEMENT OF THE CRT 9
SERVICE MODE 10
ELECTRICAL ADJUSTMENT 12
CONVERGENCE ADJUSTMENT 13
SCREEN AND MIRROR ALIGNMENTS 16
CIRCUIT CHECKS 17

CHAPTER 2 **SPECIFIC INFORMATIONS**

SETTING & ADJUSTING DATA 18
LOCATION OF CONTROLS 19
PROGRAMMING CHANNELS INTO THE TV'S CHANNEL MEMORY 21
MECHANICAL DISASSEMBLY 23
CHASSIS REPLACEMENT PARTS LIST 27
PC BOARDS BOTTOM VIEW 53
TERMINAL VIEW OF TRANSISTORS 66
CIRCUIT BLOCK DIAGRAM 69
SPECIFICATIONS ..... END
APPENDIX:
CIRCUIT DIAGRAM

CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a 120V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.

   Refer to table-1 for high voltage (A), (B).
   (See SETTING & ADJUSTING DATA on page 18)

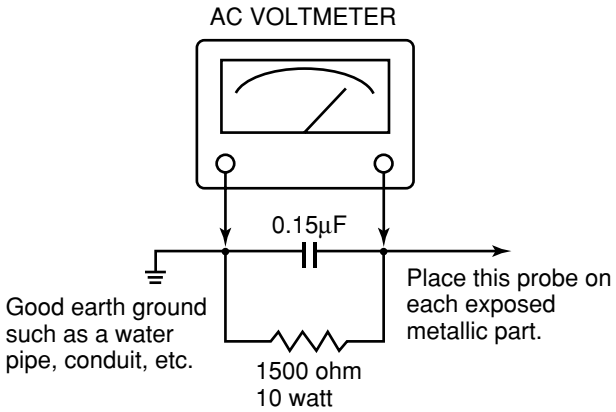
   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. This receiver is equipped with a Fail Safe (FS) circuit which prevents the receiver from producing an excessively high voltage even if the B+ voltage increases abnormally. Each time the receiver is serviced, the FS circuit must be checked to determine that the circuit is properly functioning, following the FS CIRCUIT CHECK procedure in this manual.
3. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
4. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation Transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
4. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, screwheads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner:

   Connect a 1500 ohm 10 watt resistor, paralleled by a 0.15 μF, AC type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and 0.15 μF capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.675 volts rms. This corresponds to 0.45 milliamp. AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

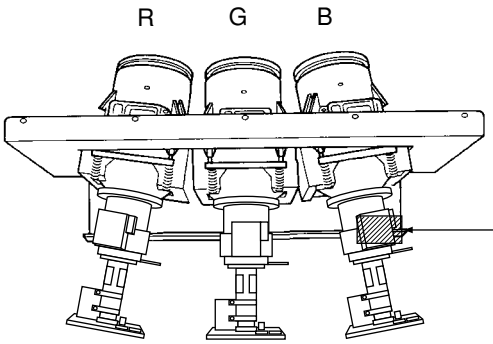

AC VOLTMETER
0.15μF
Good earth ground such as a water pipe, conduit, etc.
Place this probe on each exposed metallic part.
1500 ohm
10 watt

PRODUCT SAFETY NOTICE

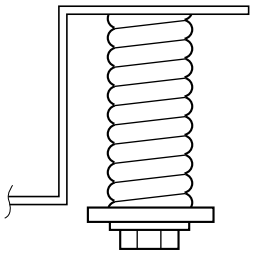
Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

CRT ASSEMBLY REPLACEMENT AND MOUNTING

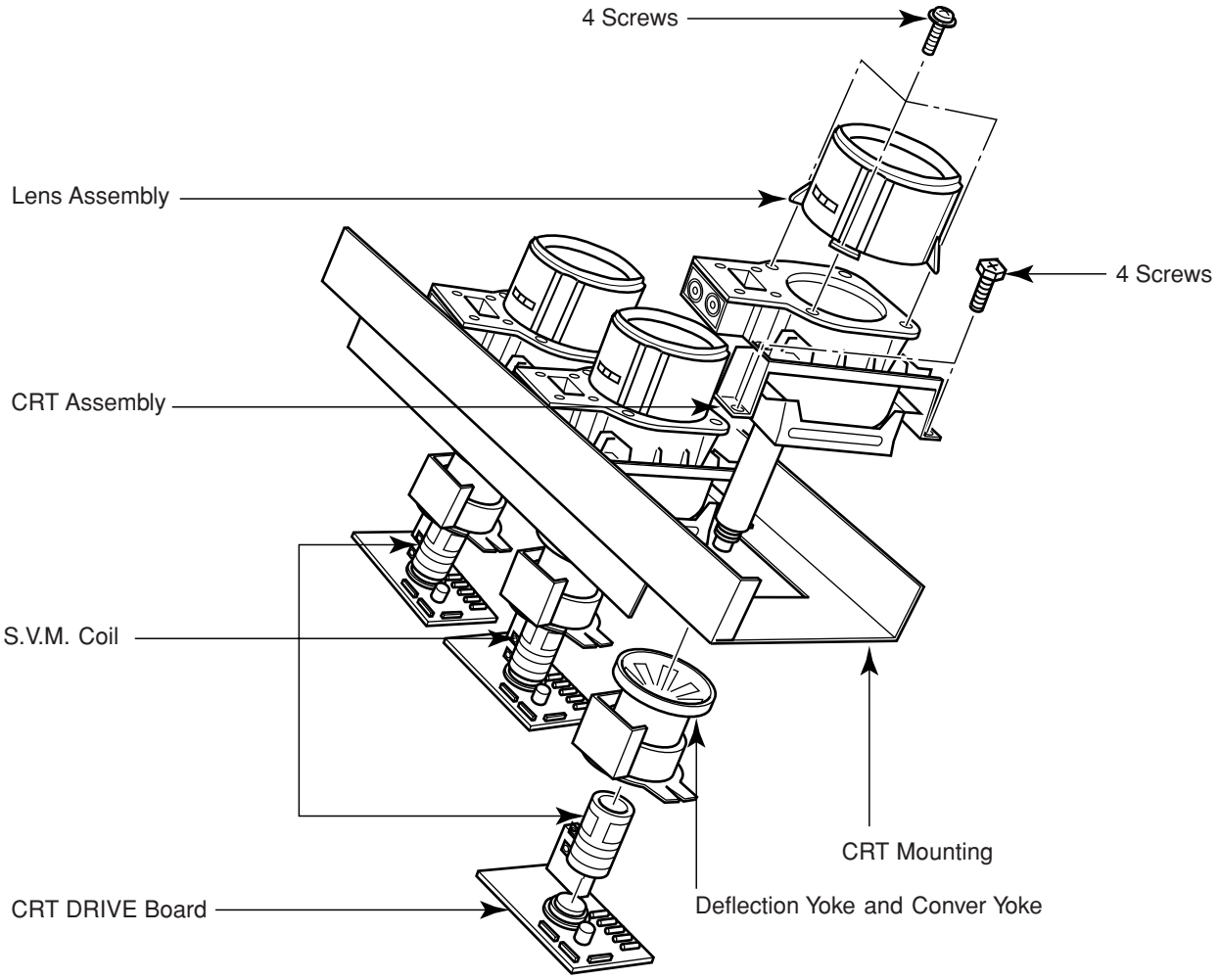
CAUTION : DO NOT LOOSEN THE HEX HEAD BOLTS WITH SPRINGS (12 PCS), BECAUSE THOSE ARE FOR SEALING OF CRT COOLANT.



Attention Serviceman



The Hex Head Bolts with Springs. (see sketch) used on CRT assembly, are NOT Adjustment Screws DO NOT LOOSEN-FLUID LEAKAGE WILL OCCUR.



Lens and Neck Components View

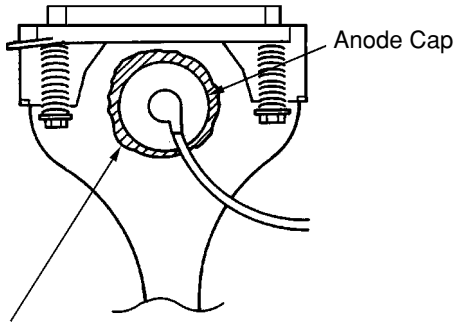
TO REMOVE CRT (Same procedure for R, G, B)

1. Remove CRT DRIVE Board, S. V. M. COIL and DEF. YOKE from CRT.
2. Remove Lens Assembly.
3. Detach CRT Anode Cap from CRT.
4. Remove CRT Assembly from CRT Mounting.

CRT REPLACEMENT (Same procedure for R, G, B)
Reverse the removal procedures except the followings.

1. Anode Cable should be replaced with new one. See “SERVICING PRECAUTIONS” shown below.
2. Install silicon (T461B) to the CRT, replace the Anode cable and put enough silicon again on around the Anode Cap as illustrated.

CAUTION: Align the Anode cable as illustrated on page 4.

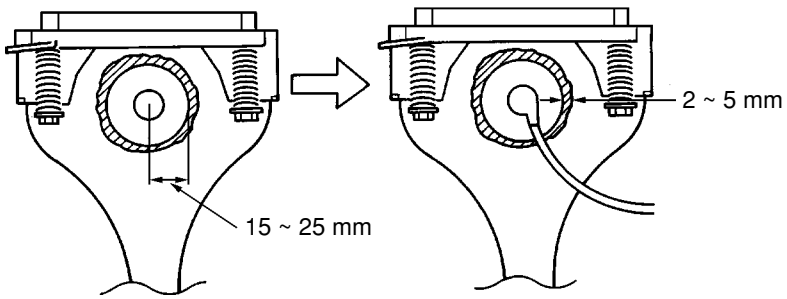


Silicon
(On shaded area)
TSE3843W #23960136

ADJUSTING PROCEDURE IN REPLACING CRT

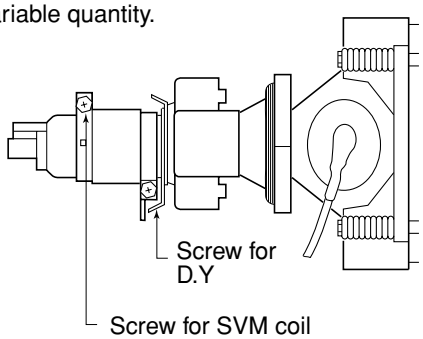
1. R.G.B. FOCUS ADJUSTMENT (page 7.)
2. PICTURE TILT ADJUSTMENT (page 7.)
3. USER CONVERGENCE CENTER CHECK (See owner's manual.)
4. CENTERING ADJUSTMENT (page 7.)
5. CONVERGENCE ADJUSTMENT (page 13.)
6. WHITE BALANCE ADJUSTMENT (page 12.)

Adjustments are complete.



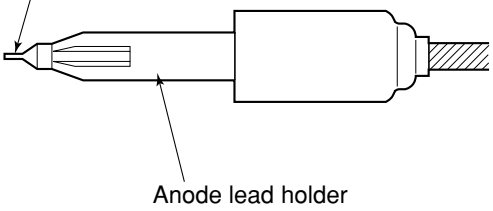
SERVICING PRECAUTIONS

■ Do not use a magnetized screw driver for screws of Deflection Yoke and Velocity Modulation Coil to avoid magnetization of electron gun. Magnetization of electron gun will degrade basic function and result in unbalance of right and left shift of user static convergence, and result in no variable quantity.



■ When replacing the anode cap assembly (CRT) or anode lead assembly (F.B.T.), remove the anode lead holder from old one and attach the holder again to new anode lead.

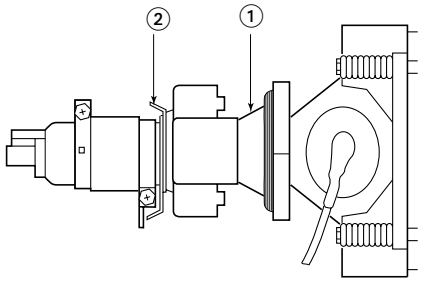
■ Check the point of anode lead in a straight line, if it is winding, please revise it.



WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

PICTURE TUBE COMPONENTS ADJUSTMENT

DESCRIPTION OF NECK COMPONENTS



① Deflection yoke and convergence yoke
The position on the neck is required most front (CRT funnel side) and the screw is fastened after rotating yoke adjusting picture tilt.

② Centering magnet
After adjusting picture tilt, picture position is finally fixed by this magnet.
In order to get maximum margin of user convergence control for center of screen, this magnet have to be used for center convergence adjustment.

PREPARATION
Operate the receiver for at least 5 minutes.

R, G, B FOCUS ADJUSTMENT

1. Before adjusting the R, G, B FOCUS, remove the 4 screws of Lens Assembly which is fixed on the CRT Assembly. (See page 4.)
2. Select the adjustment mode. (See page 10.)
3. Press “7” button to display the built-in cross-hatch.
4. Press “0” and “RTN” buttons to make the picture a single Red color.
   100 button ..... to erase Red color
   0 button ..... to erase Green color
   ENT button ..... to erase Blue color.
5. Loosen the fasten screw and adjust Red lens focus to best focusing point of picture center. Then fasten the screw. (See Fig. a.)

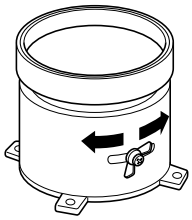


Fig. a

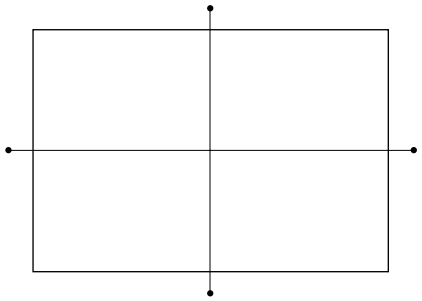
6. Adjust FOCUS VR “R” of FOCUS PACK to find best focusing point of picture center.
7. Repeat steps 3 to 5 for Green and Blue colors.

TILT ADJUSTMENT

Rotate R, G, B deflection yoke so that picture becomes horizon, then fasten screw.

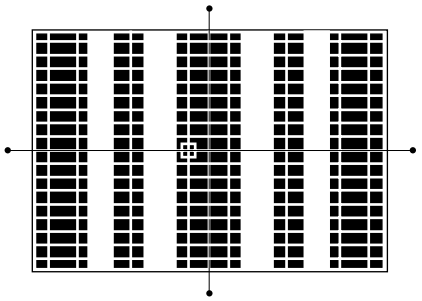
CENTERING ADJUSTMENT

1. Stretch a thread between two center of screen edge (top and bottom, left and right).



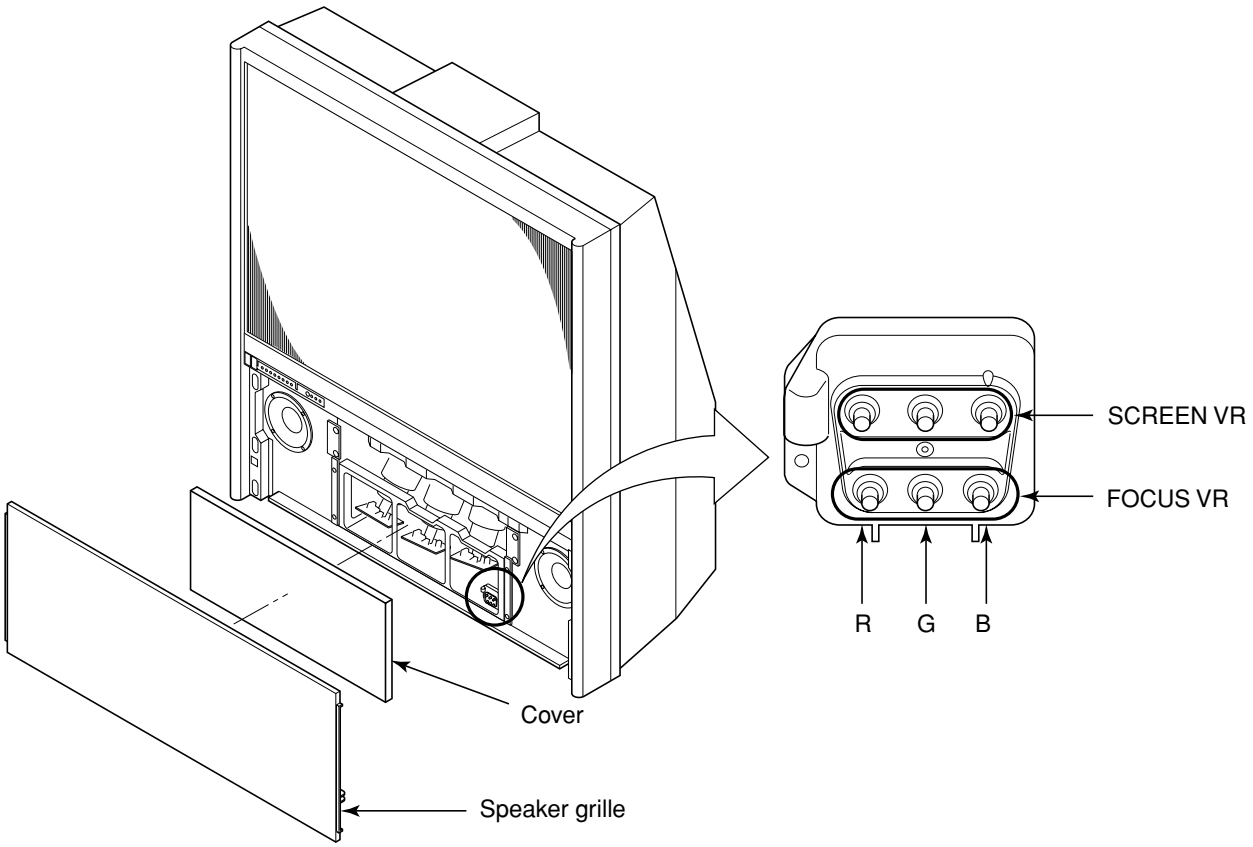
2. Receive NTSC.
   Then select SERVICE MODE. (See Page 10.)

3. Select CONVERGENCE ADJUSTING mode, and press "7" button to display the internal net pattern.
   Move Cursol and recognize horizontal line indicated Y:4. This line is vertical center. Push "9" button to display the vertical stripes, and recognaize horizontal center.

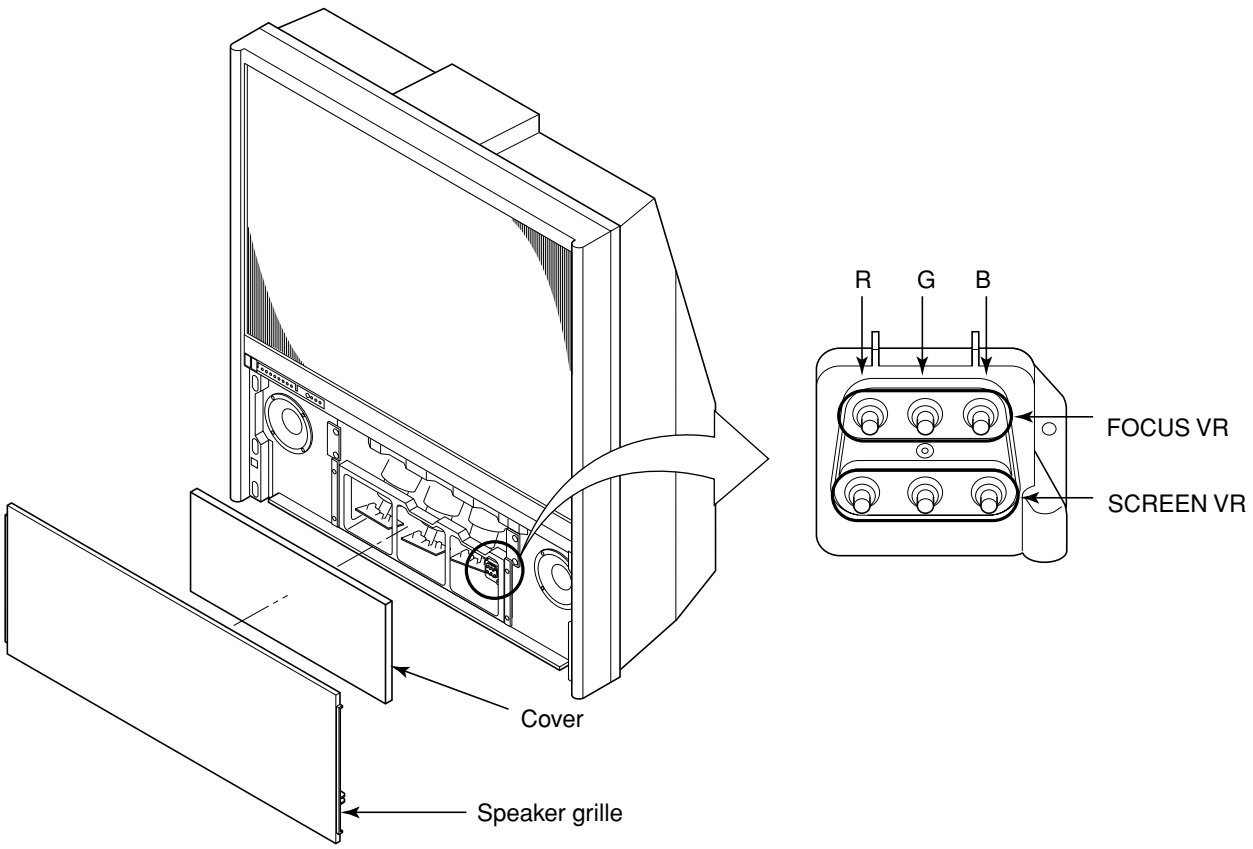


4. Perform VCEN adjustment. (See page 12.)
5. Adjust G centering magnet so that the cross-bar pattern center comes to screen center.
6. Perform HEIGHT adjustment . (See page 13.)
7. Perform VERT. LINEARITY adjustment.
8. Perform WIDTH adjustment. (See page 12.)
9. Check whole quality of green line.
10. Adjust R, B centering magnet so that the cross-bar pattern center comes to screen center.

LOCATION OF SCREEN AND FOCUS VR'S (57", 65")



LOCATION OF SCREEN AND FOCUS VR'S (46", 51")



REPLACEMENT OF THE CRT

Service parts are provided for each R, G and B.
The contents of the parts are as follows.

	R	G	B
HITACHI CRT	23008174	23008175	23008176

REPLACEMENT OF HIGH VOLTAGE CABLE

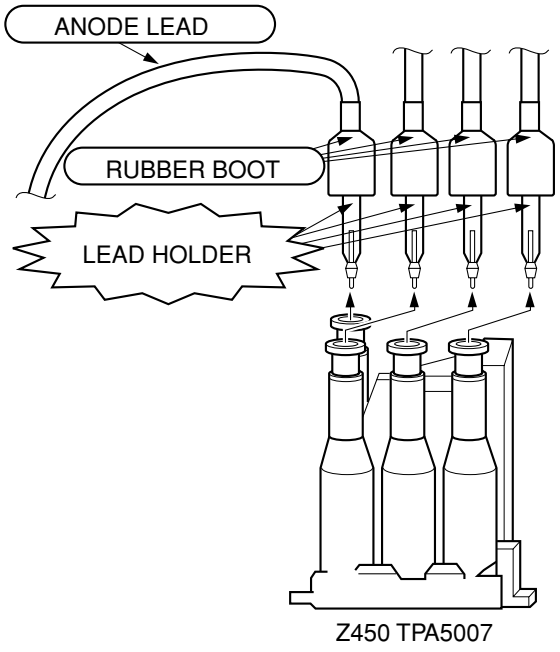


Fig. a

1. When replacing Anode Lead or Anode Cap with new one, remove Lead Holder from old lead as shown in figure below, and put it on new lead. Do not throw away Lead Holder.

NOTE : THE LEAD HOLDER IS ATTACHED TO TPA5007 (Z450), BUT IS NOT ATTACHED TO ANODE LEAD AND ANODE CAP. RUBBER BOOT IS ATTACHED TO ANODE LEAD AND ANODE CAP.

2. Detaching Lead Holder

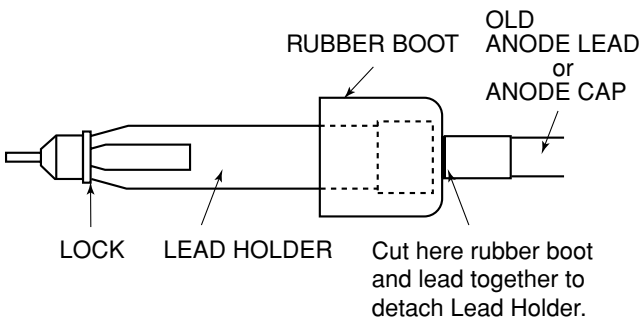


Fig. b

SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press MUTE button on Remote Control.

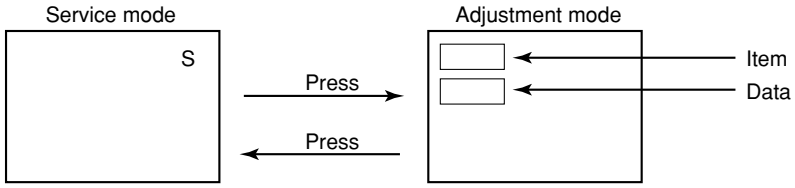
2) Press MUTE button again to keep pressing.

3) While pressing the MUTE button, press MENU button on TV set.

(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Screen adjustment mode ON/OFF:	TV (ANT)/VIDEO button (on TV)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume ▲/▼ (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	RECALL+Channel button on TV (▲)
Initialization of the self diagnostic data:	RECALL+Channel button on TV (▼)

“RCUT” selection :	1 button
“GCUT” selection :	2 button
“BCUT” selection :	3 button
“SCNT” selection :	4 button
“SCOL” selection :	5 button
“TNTC” selection :	6 button
Convergence adj :	7 button
Self diagnostic display :	9 button

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 18)

5. ADJUSTING THE DATA

1) Pressing of VOLUME ▲ or ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

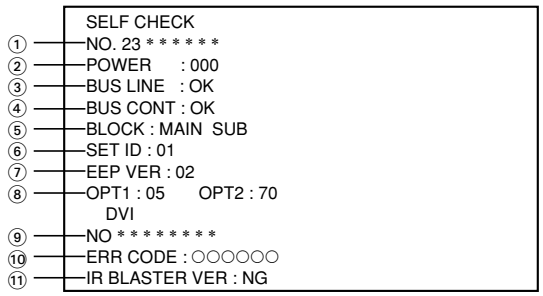
After replacing QA02, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the RECALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Programming Channel Memory” on the owner's manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode. The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.


SELF CHECK
① NO. 23 * * * * * *
② POWER : 000
③ BUS LINE : OK
④ BUS CONT : OK
⑤ BLOCK : MAIN SUB
⑥ SET ID : 01
⑦ EEP VER : 02
⑧ OPT1 : 05 OPT2 : 70
DVI
⑨ NO * * * * * * * *
⑩ ERR CODE : ○○○○○○
⑪ IR BLASTER VER : NG

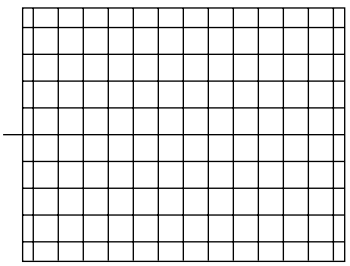
① Part number of microprocessor (QA01)
② Operation number of protection circuit (current limiter) . . . . “000” is normal.
③ BUS line check
- “OK” ..... Normal
- “SCL-GND” or “NG” ..... SCL-GND short circuit
- “SDA-GND” or “NG” ..... SDA-GND short circuit
- “SCL-SDA” or “NG” ..... SCL-SDA short circuit

④ BUS line ACK (acknowledge) check
- “OK” ..... Normal
- Display of Location Number . . . . NG
- (Display example)
- “QA02 NG”, “H001 NG”, “Q501 NG” etc.
- Note: The indication of failure place is only one place though failure places are plural. When repair of a failure place finishes, the next failure place is indicated. (The order of priority of indication is left side.)

⑤ Sync. signal check
- Green display ..... Normal
- Red display ..... NG
  - MAIN ..... Main sync
  - SUB ..... Sub sync (when turn on the PIP)

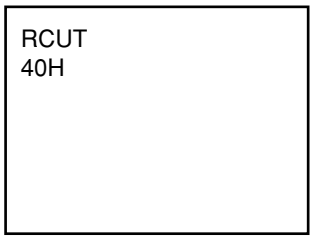
⑥ ID code for TV Set
⑦ Version of "EEP"
⑧ Data for "OPT"
⑨ Part number of DVI microprocessor (Q203)
⑩ DVI error code ..... "○○○○○○" is normal. (When DVI signal is received)
⑪ Version of IR braster IC ("NG" is displayed for models without TheaterLink.)

ELECTRICAL ADJUSTMENT

ITEM	ADJUSTMENT PROCEDURE
VERTICAL POSITION (VPSI)	1. Receive NTSC signal. 2. Connect he probe of digital voltmeter to TP-V and TP-G on SIGNAL Board. 3. Call up the adjustment mode display, then select the item VCEN. 4. Press the VOLUME ▲ or ▼ button to get the voltage 0±10 mV.
WIDTH (WID)	1. Receive NTSC signal. 2. Select the "FULL" mode by PIC SIZE button on Remote Control. 3. Call up the adjustment mode display, then select the item WID. 4. Press the VOLUME ▲ or ▼ button to get the picture so that left and right eddes of video signal begin to lack. 5. Press the VOLUME ▲ button to advance the data by 8 steps. NOTE: Check the horizontal picture position is correct.
SUB-BRIGHTNESS (BRTC)	1. Receive the air signal or aux Video signal. 2. Enter sports mode on user menu. 3. Enter the service mode, then select "**BRTC**" register. 4. Adjust the data to set dark area of picture to proper level.
HEIGHT (HIT)	1. Receive NTSC signal. 2. Select the "FULL" mode by PIC SIZE button on Remote Control. 3. Call up the adjustment mode display and select the item HIT. 4. Press the VOLUME ▲ or ▼ button to get the picture so that top and bottom of video signal begin to lack. 5. Press the VOLUME ▲ button to advance the data by 8 steps. Note: Check the vertical picture position is correct. Adjust the data of height after vertical linearty.
VERTICAL LINEARITY (VLIN) (FULL mode only)	1. Receive cross-hatch pattern. 2. Call up the adjustment mode display, then select the item **VLIN**. 3. Press the VOLUME ▲ or ▼ button to obtain the picture of the best linearity. 4. Then readjust the item HIT. 
WHITE BALANCE (RCUT) (GCUT) (BCUT) (RDRV) (BDRV)	1. Press RESET button on TV or remote hand set. 2. Call up the adjustment mode display, then adjust the data of items **RCUT**, **GCUT** and **BCUT** to "80". 3. Press TV (ANT)/VIDEO button on TV. 4. Gradually rotate R, G and B SCREEN volume of FOCUS PAC (page 9) clockwise or counterclockwise until the raster appears slightly on the CRT through the each lens, and leave them. (Look into the lens in order to check the raster.) 5. Press TV (ANT)/VIDEO button on TV again. 6. Exit from service mode. 7. Receive white laster pattern signal, and adjust the contrast to the minimum to make white picture to low light. 8. Adjust the data of items **RCUT**, **GCUT** and **BCUT** for low light area. 9. Adjust the contrast to the maximum to make white picture to high light. 10. Adjust the data of items **RDRV** and **BDRV** Controls for proper white-balanced picture in high light area. 11. Check the white balance in both low and high light areas. If necessary, perform again steps from 7 to 9.

CONVERGENCE ADJUSTMENT

1. Receive NTSC signal.
2. Enter to the service mode. (See Page 10.)



3. Press "7" button to enter the convergence adjusting mode, and the internal net pattern will be displayed. Then, press "9" button to display veritcal stripes.
4. Select the point and the color by pressing following buttons. (Cursor should be blinking.)
   "2", "8", "4", "6" : To select point
   "3" : To select color
5. Then press "5" button, and adjust the convergence by pressing following buttons. (Cursor should not be blingking.)
   "2", "8", "4", "6" : To adjust convergence
   "3" : To select color
6. Repeat from steps 3 to 4 until the convergence and the geometry become fine. (See Page 14.)
7. Press "7" button to momorize the adjusted data.
8. Message of "PLEASE PUSH TOUCH FOCUS" will be displayed, and press TOUCH FOCUS button which is located on the front panel.
9. TOUCH FOCUS CALIBRATION will start.
10. Soon message of "CALIBRATION FINISHED" will be displayed, and then a normal picture will be displayed.
11. Then push TOUCH FOCUS button again, and confirm that the convergence does not change.

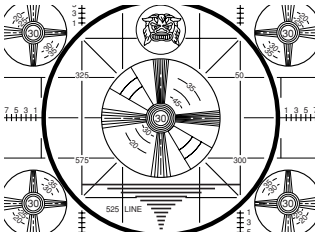
Note: If message of "TOUCH FOCUS ERROR" is displayed,
   1) Check the connection between four sensors and Convergence Unit.
   2) Check the geometry of internal net pattern. (See Page 14.)

   If any problem cannnot be found, hardware might have problem.

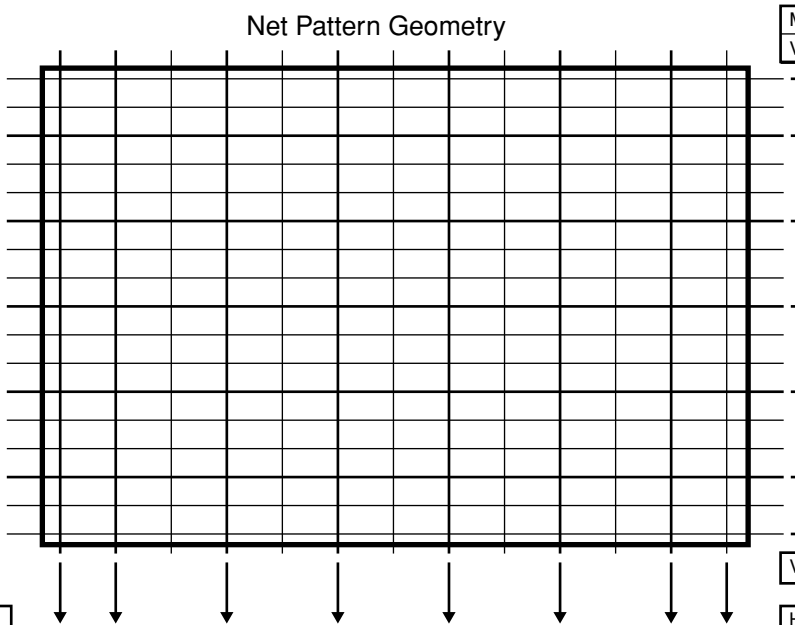
EXPLANATION OF KEY-FUNCTION IN THE CONVERGENCE ADJUSTMENT MODE

Load BACK UP DATA:	1 button
Up :	2 button
Selet Green color:	3 button
Left :	4 button
Blinking of cursor ON/OFF:	5 button
Right:	6 button
Adjust mode ON/OFF:	7 button
Down:	8 button
Vertical stripe ON/OFF	9 button
Erase Green line:	0 button
Erase Red line:	100 button
Erase Blue line:	ENT button

DEFLECTION and CONVERGENCE

ITEM	NAME	SETTING	INPUT SIGNAL	TEST POINT	MEASUREMENT INSTRUMENT	ADJUSTMENT METHOD	ADJUSTMENT SPEC
VPS1	VERTICAL Raster centering Adjusment	CONTRAST:MAX BRIGHNESS:CNT COLOUR :CNT TINT :CNT	Retma Signal	Between TP-G to TP-V	Digital Volt Meter	To adjust the voltage between TP-G and TP-V	0 ± 10mV
Centering Adjusment		CONTRAST:MAX BRIGHNESS:CNT COLOUR :CNT TINT :CNT PIC SIZE :FULL	Retma Signal	Picture Adjustment	Picture Adjustment	1. To adjust the Magnet about Horizntal position and Vertical position should center of picture. 2. To adjust each R, G, B.	
WID	Horizontal Adjustment (FULL)	CONTRAST:MAX BRIGHNESS:CNT COLOUR :CNT TINT :CNT PIC SIZE :FULL	Retma Signal	Picture Adjustment	Picture Adjustment	To adjust the Horizontal Amplitude by WID.	11 ± 1 bar
HIT VLIN	Vertical Adjustment (FULL)	CONTRAST:MAX BRIGHNESS:CNT COLOUR :CNT TINT :CNT PIC SIZE :FULL	Retma Signal	Picture Adjustment	Picture Adjustment		Upper ..... Circle of Lion just touch to line of Mask. Bottom .... To hide the 12 bars by line of Mask.
Convergence			Retma Signal	Picture Adjustment	Picture Adjustment	Refer to the following (Convergence Net Geometry)	

CONVERGENCE (51 / 57 / 65 WIDE)



Model	51WIDE	57WIDE	65WIDE
V size	635.085	780.750	810.000
	308.0	344.0	392.8
	231.0	258.0	294.6
	115.5	129.0	147.3
	0.0	0.0	0.0
	115.5	129.0	147.3
	231.0	258.0	294.6
	308.0	344.0	392.8
V span	38.5	43.0	49.1

Model	H size									H span
51WIDE	1129.0	549.7	458.1	274.9	91.6	0.0	91.6	274.9	458.1	549.7	91.6
57WIDE	1260.0	613.5	511.3	306.8	102.3	0.0	102.3	306.8	511.3	613.5	102.3
65WIDE	1442.0	702.1	585.1	351.1	117.0	0.0	117.0	351.1	585.1	702.1	117.0

UNIT: mm

NOTES

In many cases, color misconvergence may be corrected by returning HIT and WID data in main deflection side to initial adjusting values. Following cases will surely require readjustment of convergence.

CRT REPLACEMENT

When CRT is replaced, main deflection readjustment and color matching are required.
Perform following procedures.

1. Replace two CRT's of blue and red.
2. Perform horizontal adjustment for blue and red yokes on base of green CRT data. Mount yoke and velocity mod. coil alignment, pushing towards CRT without gap.
3. Adjust alignment of blue and red. (Refer Alignment adjustment for details.)
4. Rotating centering magnet, adjust CRT centers of red and blue to CRT center of green.
   (Picture position adjustment)
5. Adjust HIT and WID data of main deflection, and decide data at the most precise screen comparing to green data.
6. Adjust convergence of screen picture for color matching. Do not move green one at this time.
7. After convergence adjustment of screen picture finishes, replace green CRT.
   For green CRT as well, repeat steps 2 to 5 above on bases of red and blue color matching to adjust convergence.
8. Execute TOUCH FOCUS following instructions displayed on the screen after finishing convergence adjustments of all the colors.
   Note: Press button "7" again after "PLEASE PUSH TOUCH FOCUS" has been displayed. Then, TOUCH FOCUS will not be executed, and the current state of convergence will be displayed.

REPLACING CONVERGENCE UNIT

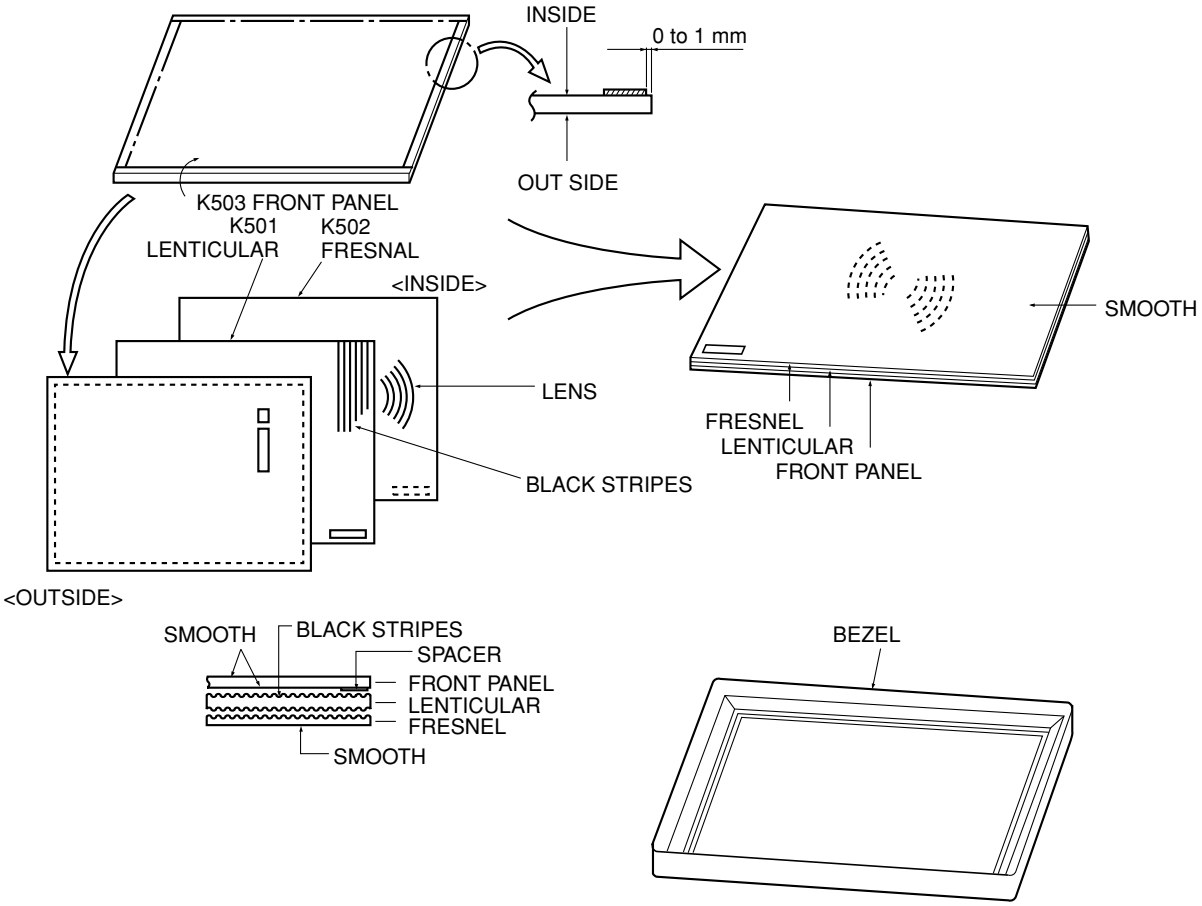
1. Confirm that the initial data, which is specified by a model name, is memorized in the new unit.
   (It's not allowed to use the data of other models.)
2. Mount the new unit to the SET, and turn the POWER on.
3. Adjust centering magnets, Hight (HIT) and Width (WID). (See Page 7.)
4. Adjust the convergence. (See Page 13.)

If the memory in the defective module is available, following steps are allowed.

1. Remove the memory (Q173) from the defective unit, and mount it to the new unit.
2. Mount the new unit to the SET, and turn the POWER on.
3. Enter to the convergence adjusting mode, and load BACKUP DATA by pressing "1" button. (See Page 13.)
4. Adjust centering magnets. (See Page 7.)
5. Adjust the convergence. (SeePage 13.)

SCREEN AND MIRROR ALIGNMENTS

ASSEMBLING OF FRONT SCREEN



MOUNTING OF FRONT SCREEN

CAUTION : Do not hold the optical system parts (lens and mirror) with bare hand to avoid finger-prints on the surface of those parts.

HOW TO CLEAN LENS AND MIRROR

1. Be sure to remove sand dust with an air brush, etc.
2. When it is stained slightly, breathe upon it and wipe away with the specified cleaning cloth.
   For other stains than the above, wipe the stains away with the specified cloth into which a cleaning liquid has been soaked.

Cleaning liquid..... **LENS LUSTER** (Manufactured by Edmund Scientific Co.), etc.

HOW TO CLEAN SCREEN

When cleaning the screen, use a soft cloth so as not to damage the screen.

1. Wipe the screen with a dry cloth to remove moisture on the screen.

Note : Absolutely do not use detergent, water, alcohol, benzine, thinner, etc. for cleaning in order not to wipe away the black print on the surface.

CIRCUIT CHECKS

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST to minimum (zero beam current).
3. High voltage must be measured below (B) kV.
   Refer to table-1 for high voltage (B).
   (See SETTING & ADJUSTING DATA on page 18)
4. Vary the BRIGHTNESS to both extremes to be sure the high voltage does not exceed the limit under any conditions.

CAUTION:

When the following parts fail, check the High Voltage after replacing.

Location No.	Name	Descriptions
		51", 57", 65"
T461	Flyback	TFB3092AD
C440	Capacitor	1000pF, ±3%
C443	Capacitor	5100pF, ±3%
C444	Capacitor	3300pF, ±3%
C467	Capacitor	6800pF, ±5%
C468	Capacitor	6800pF, ±5%

ANODE VOLTAGE MEASURING METHOD

CAUTION: Take extra precaution when measuring this high voltage. High voltages are also present in surrounding circuit boards (CRT DRIVE assembly, DEFLECTION assembly, and POWER SUPPLY assembly).

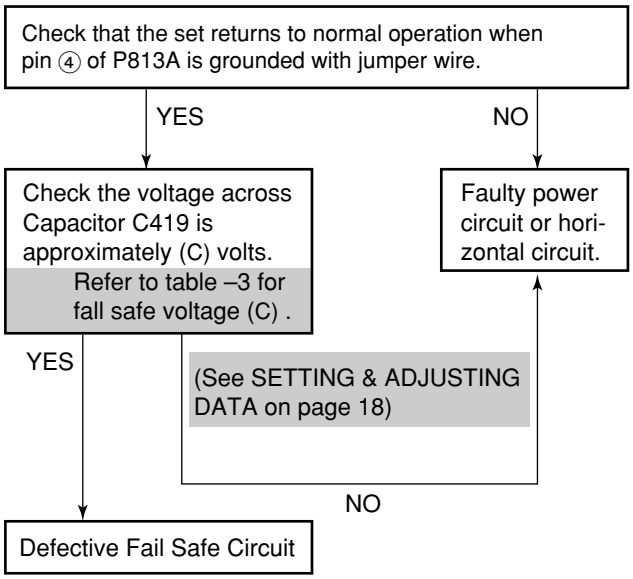
1. Disconnect the FBT anode cable as outlined below. Measure high voltage at the point where the cable enters the FBT.
2. Holding the rubber cover firmly, turn it counterclockwise and check that the lock has been disengaged. (See Fig. b on page 9.)
3. Determine the extent of the rubber cover before disconnecting the cable.
4. Pull straight up the anode cable to disconnect.
5. When reconnecting the cable, proceed in the reverse order. After reconnecting, tug on the cable to check that it is secure.

FS CIRCUIT CHECK

The Fail Safe (FS) circuit check is indispensable for the final check in servicing. Checking should be done following the steps below.

1. Turn the receiver on.
2. Temporarily short TP- (R) and TP- (X) on the DEF/CONVER Board with a jumper wire.
   Raster and sound will disappear.
3. The receiver must remain in this state even after removing the jumper wire. This is the evidence that the FS circuit is functioning properly.
4. To obtain a picture again, temporarily turn the receiver off and allow the FS circuit more than 5 seconds to reset. Then turn the receiver on to produce a normal picture.

Troubleshooting Guide for Fail Safe Circuit


Check that the set returns to normal operation when pin ④ of P813A is grounded with jumper wire.
YES
NO
Check the voltage across Capacitor C419 is approximately (C) volts.
Refer to table –3 for fall safe voltage (C) .
(See SETTING & ADJUSTING DATA on page 18)
Faulty power circuit or horizontal circuit.
YES
NO
Defective Fail Safe Circuit

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【SAFETY INSTRUCTIONS】

		51", 57", 65"
HIGH VOLTAGE AT ZERO BEAM:	(A)	31.0 kV
MAX HIGH VOLTAGE:	(B)	32.5 kV

Table-1

【SERVICE MODE】

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

Item	Name of adjustment	Preset	Data
RCUT	R CUT OFF	80H	←
BCUT	B CUT OFF	80H	←
GDRV	G DRIVE	40H	←
BDRV	B DRIVE	40H	←
BRTC	BRIGHT CENTER	80H	←
HIT	PICTURE HIT	32H	←
VLIN	V LINEARITY	13H	←
VSC	V S CORRECTION	29H	←
WID	PICTURE WIDTH	32H	←

Item	Name of adjustment	Preset	Data
COLC	COLOR CENTER	52H	←
VCP	V COMPENSATION	04H	←
PARA	EW PARABOLA	11H	←
CNR	EW M CORRECTION	10H	←
HCP	H COMPENSATION	00H	←
VFC	V f CORRECTION	00H	←
VPSI	V CENTERRING	4DH	←
TVOP	TV OPTION	58H	←

Table-2

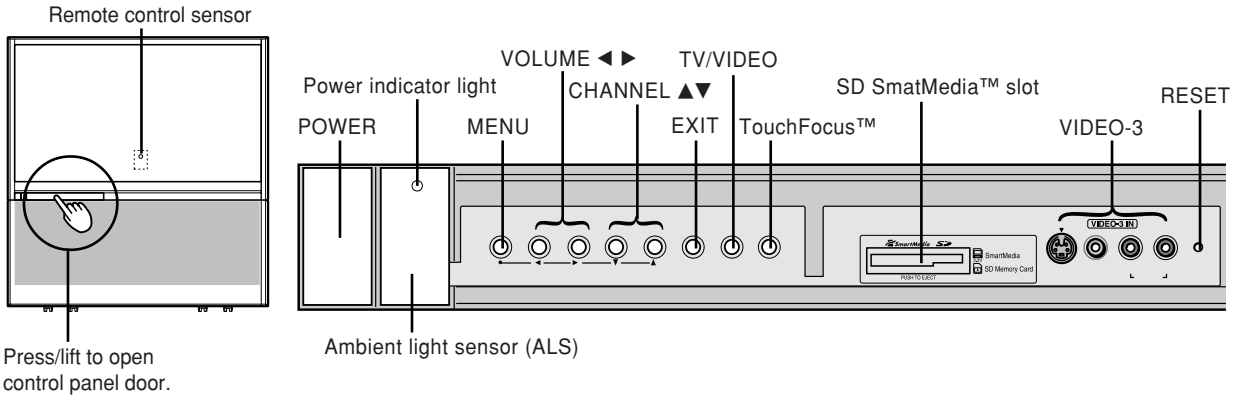
【CIRCUIT CHECKS】

HIGH VOLTAGE DET	(C)	8.7 V

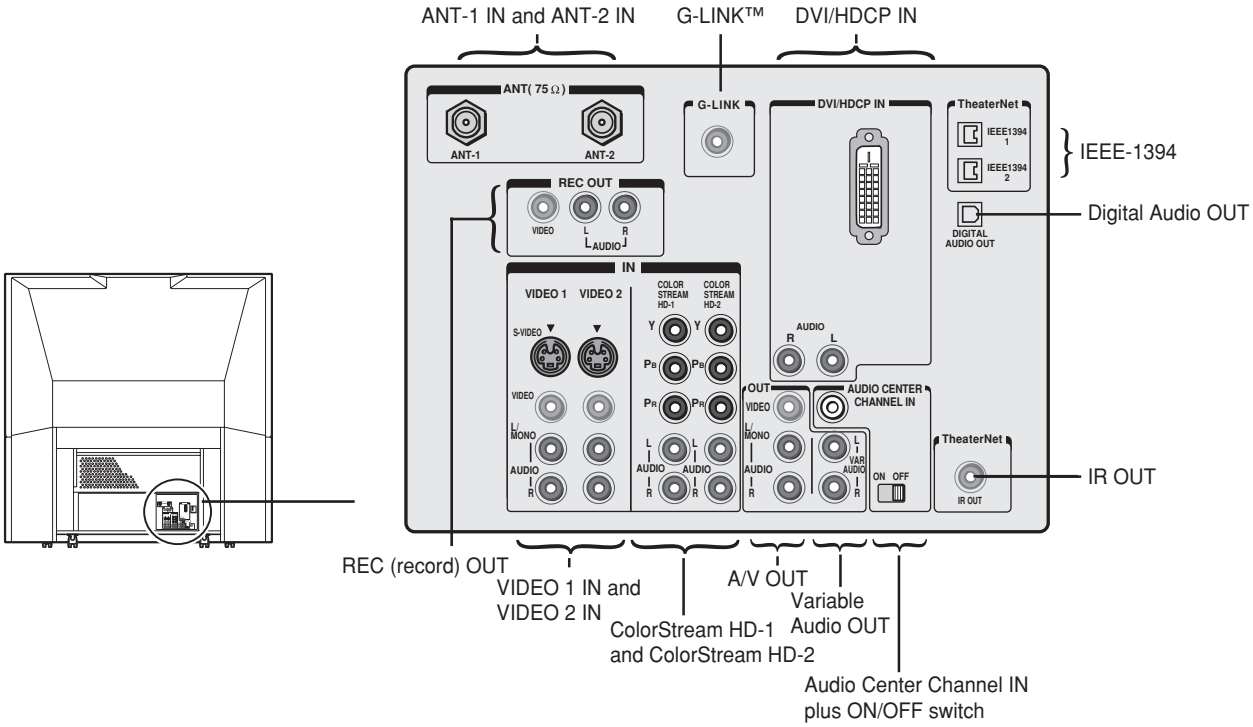
Table-3

LOCATION OF CONTROLS (Representative: 51HX93)

TV front



TV rear



Remote control

POWER turns the TV on and off.

SLEEP accesses the sleep timer.

LIGHT The first press of the LIGHT button lights the keypad and turns on the Illumination mode. With the Illumination mode on, pressing any other key lights the keypad for 5 seconds (10 seconds if you're in programming mode). Subsequent presses of the LIGHT button toggle between turning the Illumination mode on and off.

Channel Numbers (0–9, 100) directly access channels.

MODE cycles through the six device modes: TV, CABLE/SAT, VCR, DVD, AUDIO1, and AUDIO2. The mode indicator light will remain lit for a few seconds.

PIC SIZE cycles through the five pictures sizes: Natural, Theater Wide 1/2/3, and Full.

THEATER NET accesses the on-screen IR device control icons.

MENU accesses the menu system.

GUIDE opens the TV Guide On Screen system.

INFO provides detailed information on highlighted items in the TV Guide On Screen system.

BLUE and GREEN buttons select menu-specific functions in the TV Guide On Screen system.

ENTER activates highlighted items in the main menu system and the TV Guide On Screen system.

▲▼ ◄ ► select or adjust programming menus.

FAV accesses the favorite channel search function.

CH ▲▼ cycles through programmed channels when no menu is on-screen; functions as page up/down when a menu is on-screen or when the TV Guide On Screen system is open.

VOL ▲▼ adjusts the volume level.

EXIT closes on-screen menus and the TV Guide On Screen system.

CH RTN returns to the last viewed channel.

INPUT selects the video input source.

RECALL displays TV setting information on-screen.

MUTE reduces or turns off the sound.

TV/VCR press to select TV mode to view one program while recording another.

SPLIT turns the POP feature on and off.

POP CH ▲▼ selects the POP (picture-out-picture) channel.

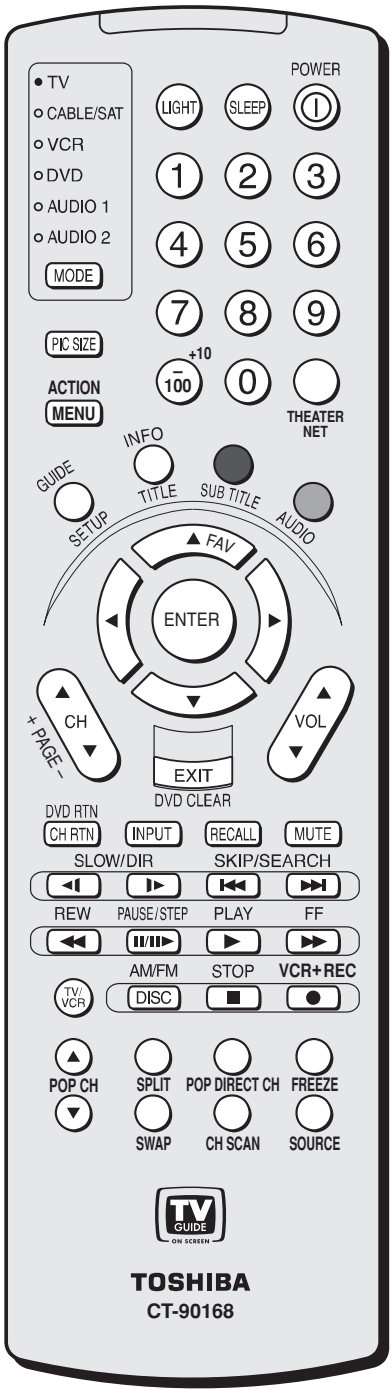
POP DIRECT CH allows direct access to POP channels.

FREEZE freezes the main picture in the double-window.

SWAP switches the main and POP pictures.

CH SCAN allows access to the programmed channel search function.

SOURCE selects the POP picture source.



Note:
The error message "Not Available " will appear if you press a key for a function that is not available.

PROGRAMMING CHANNELS INTO THE TV'S CHANNEL MEMORY

When you press CHANNEL ▲ or ▼ on the remote control or TV front panel, your TV will stop only on the channels stored in the TV's channel memory.
Follow the steps below to program channels into the TV's channel memory.

Programming channels automatically

Your TV can automatically detect all active channels in your area and store them in its memory. After the channels are programmed automatically, you can manually add or erase individual channels.

Note:
- If you already programmed channels automatically during the Quick Connect Guide assisted setup, you can skip to "Manually adding and deleting channels in the channel memory" on the next page.
- You must configure the antenna input sources before programming channels.
- The automatic channel programming process does NOT erase channels that were previously programmed into the TV's memory, but adds newly found channels to the existing set of programmed channels. To remove a channel from the memory, you must manually delete it.
- To tune the TV to a channel not programmed in the channel memory, you must use the Channel Number buttons on the remote control.
- Programming channels for an antenna input configured for CABLE will take substantially longer than for an antenna input configured for ANTENNA. This is normal; however, once channel programming is completed, you should not have to repeat the programming process again unless your Cable TV service lineup changes significantly.

To program channels automatically:

1 Make sure you have configured the antenna input sources.

2 Press MENU and open the SETUP menu.

3 Highlight INSTALLATION and press ENTER. (A new set of INSTALLATION menu icons will appear on-screen, as shown in step 4.)

4 Open the TERRESTRIAL menu, highlight CHANNEL PROGRAM, and press ENTER.

5 Highlight ANT 1 or ANT 2, depending on which antenna input you want to program channels for, and then press ENTER to start automatic channel programming.
The TV will automatically cycle through all the channels for the antenna input you selected, and store all active channels in the channel memory. While the TV is cycling through the channels, the message "Scanning channels, please wait" appears.
To cancel channel programming, highlight ABORT and press ENTER.

6 When channel programming is done, press CHANNEL ▲ or ▼ to view the programmed channels.

Manually adding and deleting channels in the channel memory

After you have programmed the channels automatically, you can manually add or delete individual channels in the channel memory.

To add or delete channels in the channel memory:

1. Press MENU and open the SETUP menu.
2. Highlight INSTALLATION and press ENTER. (A new set of INSTALLATION menu icons will appear on screen, as shown in step 3).
3. Open the TERRESTRIAL menu, highlight CHANNEL ADD/DELETE, and then press ENTER.
4. The illustration below shows channels programmed for the ANT 1 antenna input. To view the list of channels programmed for the ANT 2 antenna input, highlight CHANGE ANTENNA and press ENTER.

To add a channel to the channel memory:
Highlight the unchecked box next to the channel number you want to add, and then press ENTER to check the box.

To remove a channel from the channel memory:
Highlight the checked box next to the channel number you want to remove, and then press ENTER to uncheck the box.

To save your new settings:
Highlight SAVE and press ENTER.

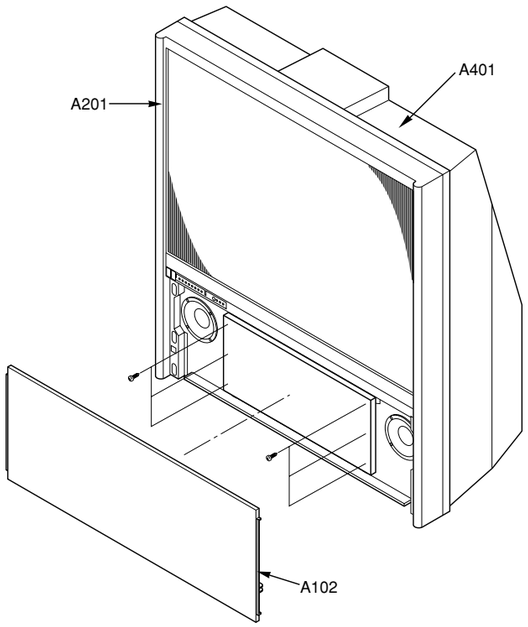
To revert to your original settings:
Highlight CANCEL and press ENTER before saving.

To remove all channels from the channel memory:
Highlight CLEAR ALL and press ENTER, and then highlight SAVE and press ENTER.

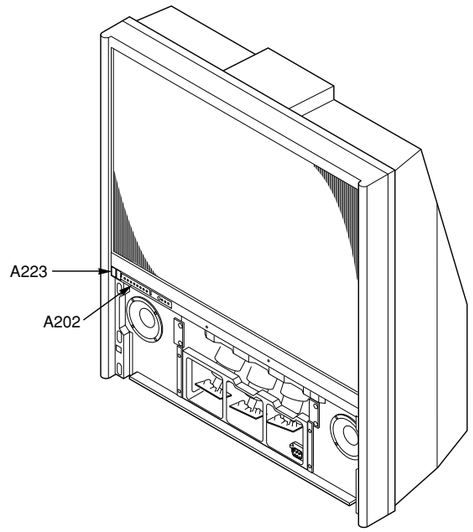
Note: This action cannot be cancelled unless you highlight CANCEL and press ENTER before saving your changes.

MECHANICAL DISASSEMBLY

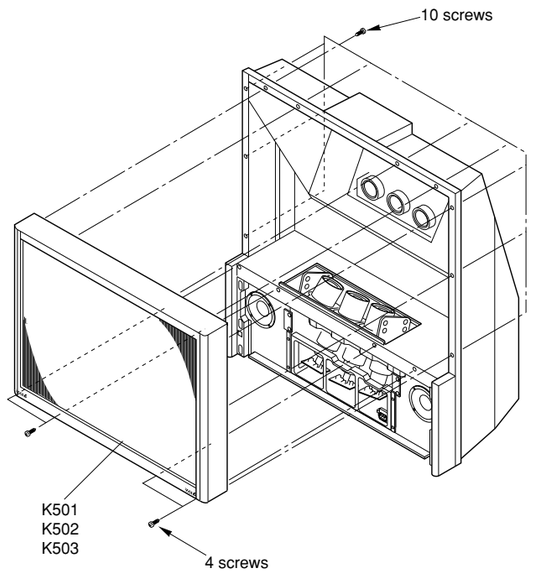
1 Speaker Grille Removal



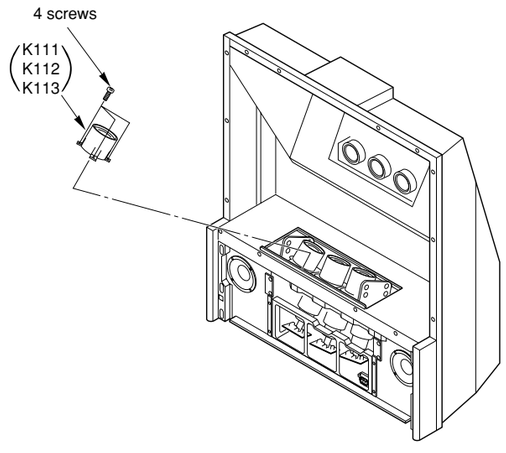
2 Control Panel Removal



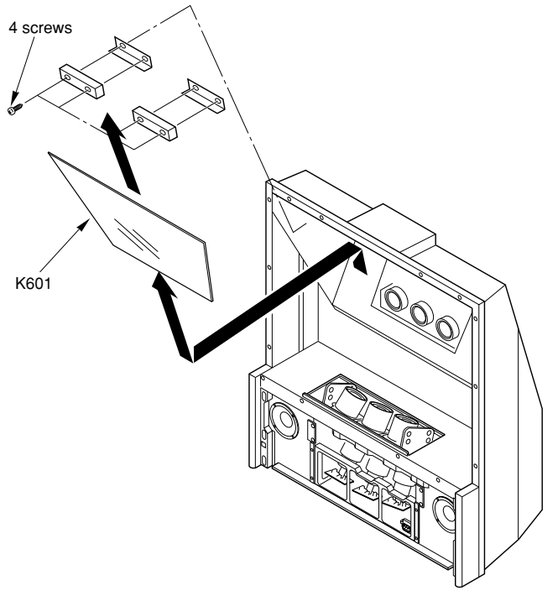
3 Front Mask Removal



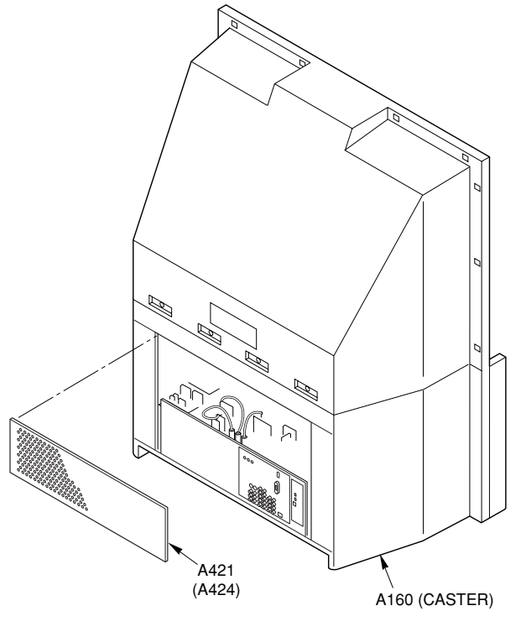
4 Shield Plate, Lens Removal



5 Mirror Removal



6 Back Board Removal



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CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:

- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Models : 51HX93, 57HX93, 65HX93

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
CAPACITORS		
C101	24797339	ELECTROLYTIO, 50V 3.3UF M
C102	24665221	ELECTROLYTIC, 10V 220UF M 3A
C105	24100102	CERAMIC CHIP, 50V F 1000PF Z
C106	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C107	24666221	ELECTROLYTIC, 16V 220UF M 3A
C108	24665221	ELECTROLYTIC, 10V 220UF M 3A
C112	24665221	ELECTROLYTIC, 10V 220UF M 3A
C115	24100102	CERAMIC CHIP, 50V F 1000PF Z
C117	24666221	ELECTROLYTIC, 16V 220UF M 3A
C119	24109473	CERAMIC CHIP, 25V B 0.047UF K
C198	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C199	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C201	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C202	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C203	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C204	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C205	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C205	24766229	ELECTROLYTIC, 50V 2.2UF M
C206	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C206	24797229	ELECTROLYTIC, 50V 2.2UF M
C207	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C208	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C209	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C210	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C211	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C212	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C213	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C214	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C215	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C216	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C217	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C218	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C219	24109103	CERAMIC CHIP, 50V B 0.01UF K
C220	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C221	24503041	PLASTIC FILM , 63V 0.1UF J
C221	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C222	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C223	24100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
C224	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C225	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C226	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C227	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C228	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C229	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C230	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C231	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C232	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C233	24109103	CERAMIC CHIP, 50V B 0.01UF K
C236	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C237	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C238	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C239	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C240	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C241	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C242	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C243	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C244	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C245	24105560	CERAMIC CHIP, 50V CH 56PF J
C246	24105150	CERAMIC CHIP, 50V CH 15PF J
C247	24105270	CERAMIC CHIP, 50V CH 27PF J
C248	24105101	CERAMIC CHIP, 50V CH 100PF J
C249	24105820	CERAMIC CHIP, 50V CH 82PF J
C250	24105560	CERAMIC CHIP, 50V CH 56PF J
C251	24105150	CERAMIC CHIP, 50V CH 15PF J
C252	24105270	CERAMIC CHIP, 50V CH 27PF J
C253	24105101	CERAMIC CHIP, 50V CH 100PF J
C254	24105820	CERAMIC CHIP, 50V CH 82PF J
C255	24105560	CERAMIC CHIP, 50V CH 56PF J
C256	24105150	CERAMIC CHIP, 50V CH 15PF J
C257	24105270	CERAMIC CHIP, 50V CH 27PF J
C258	24105101	CERAMIC CHIP, 50V CH 100PF J
C259	24105820	CERAMIC CHIP, 50V CH 82PF J
C260	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C261	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C262	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C263	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C264	24092441	CERAMIC CHIP, 16V F 1UF Z

Location No.	Parts No.	Description
C264	24105100	CERAMIC CHIP, 50V CH 10PF D
C265	24105100	CERAMIC CHIP, 50V CH 10PF D
C266	24105100	CERAMIC CHIP, 50V CH 10PF D
C267	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C268	24105101	CERAMIC CHIP, 50V CH 100PF J
C269	24105101	CERAMIC CHIP, 50V CH 100PF J
C272	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C273	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C301	24503053	PLASTIC FILM, 63V 1UF J
C302	24669010	ELECTROLYTIC, 50V 1UF M 3A
C303	24503053	PLASTIC FILM, 63V 1UF J
C308	24567223	PLASTIC FILM, 50V 0.022UF J
C309	24109102	CERAMIC CHIP, 50V B 1000PF K
C310	24073053	ELECTROLYTIC, 25V 100UF M 3A
C311	24109103	CERAMIC CHIP, 50V B 0.01UF K
C312	24109332	CERAMIC CHIP, 50V B 3300PF K
C314	24503037	MT PLA CAP, 63V 0.047UF J
C315	24073020	ELECTROLYTIC, 10V 1000UF M 3A
C320	24669101	ELECTROLYTIC, 50V 100UF M 3A
C321	24669101	ELECTROLYTIC, 50V 100UF M 3A
C323	24109473	CERAMIC CHIP, 25V B 0.047UF K
C324	24503053	PLASTIC FILM, 63V 1UF J
C325	24082057	PLASTIC FILM, 100V 0.22UF J
C327	24092730	CERAMIC CHIP, 16V B 0.1UF K
C328	24082256	PLASTIC FILM, 100V 2200PF J
C330	24073034	ELECTROLYTIC, 16V 10UF M 3A
C332	24669101	ELECTROLYTIC, 50V 100UF M 3A
C333	24082272	PLASTIC FILM, 100V 0.047UF J
C334	24109471	CERAMIC CHIP, 50V B 470PF K
C338	24666100	ELECTROLYTIC, 10V 10UF M 3A
C340	24073037	ELECTROLYTIC, 16V 47UF M 3A
C361	24092730	CERAMIC CHIP, 16V B 0.1UF K
C362	24109473	CERAMIC CHIP, 25V B 0.047UF K
C370	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
C371	24092730	CERAMIC CHIP, 16V B 0.1UF K
C401	24214332	CERAMIC DISC, 500V B 3300PF K
C402	24214391	CERAMIC DISC, 500V B 390PF K
C405	24503041	PLASTIC FILM , 63V 0.1UF J
C412	24828104	PLASTIC FILM CQ92 T 200V R1UF J
C415	24092484	CERAMIC DISC, 2KV B 1500PF K
C416	24676220	ELECTROLYTIC, 100V 22UF M 3A
C417	24503334	PLASTIC FILM CF92 T 250V 1R5UF J
C419	24105331	CERAMIC CHIP, 50V CH 330PF J
C420	24503041	PLASTIC FILM , 63V 0.1UF J
C422	24591102	PLASTIC FILM, 50V 1000PF J
C423	24503252	PLASTIC FILM, 400V 0.3UF J
C425	24503142	PLASTIC FILM, 400V 0.27UF J
C426	24211222	CERAMIC DISC, 2KV B 2200PFK
C432	24567333	PLASTIC FILM, 50V 33000PF J
C440	24503059	PLASTIC FILM CF92 T 1800VH 1000PF H
C443	24503195	PLASTIC FILM, 1800VH 5100PF H
C444	24503346	PLASTIC FILM, 1800VH 3300PF H
C445	24828473	PLASTIC FILM, 200V 0.047UF J
C446	24073120	ELECTRPLYTIC, 250V 33UF, 250YXF33M
C448	24073118	ELECTROLYTIC, 160V 33UF M
C449	24214221	CERAMIC DISC, 500V B 220PF K
C450	24073057	ELECTROLYTIC, 25V 1000UF M 3A
C460	24678220	ELECTROLYTIC, 200V 22UF M
C463	24109472	CERAMIC CHIP, 50V B 4700PF K
C464	24503149	PLASTIC FILM, 250V 3.3UF
C467	24820682	PLASTIC FILM, 630V 6800PF J
C468	24820682	PLASTIC FILM, 630V 6800PF J
C473	24503041	PLASTIC FILM , 63V 0.1UF J
C481	24109103	CERAMIC CHIP, 50V B 0.01UF K
C482	24109822	CERAMIC CHIP, 50V B 8200PF K

Location No.	Parts No.	Description
C491	24666100	ELECTROLYTIC, 10V 10UF M 3A
C496	24503049	PLASTIC FILM, 63V 0.47UF J
C499	24666220	ELECTROLYTIC, 16V 22UF M 3A
C513	24109103	CERAMIC CHIP, 50V B 0.01UF K
C515	24503041	PLASTIC FILM , 63V 0.1UF J
C518	24666100	ELECTROLYTIC, 10V 10UF M 3A
C522	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C523	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C524	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C531	24666101	ELECTROLYTIC, 16V 100UF M 3A
C532	24666100	ELECTROLYTIC, 10V 10UF M 3A
C533	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C534	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C535	24109103	CERAMIC CHIP, 50V B 0.01UF K
C536	24109103	CERAMIC CHIP, 50V B 0.01UF K
C537	24109103	CERAMIC CHIP, 50V B 0.01UF K
C538	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C540	24092538	CERAMIC CHIP, 10V F 1UF Z
C541	24092538	CERAMIC CHIP, 10V F 1UF Z
C542	24092538	CERAMIC CHIP, 10V F 1UF Z
C547	24109103	CERAMIC CHIP, 50V B 0.01UF K
C563	24797010	ELECTROLYTIC, 50V 1UF M
C564	24797229	ELECTROLYTIC, 50V 2.2UF M
C565	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C566	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C567	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C568	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C571	24109103	CERAMIC CHIP, 50V B 0.01UF K
C575	24108100	CERAMIC CHIP, 50V SL 10PF D
C576	24108100	CERAMIC CHIP, 50V SL 10PF D
C577	24108100	CERAMIC CHIP, 50V SL 10PF D
C584	24797010	ELECTROLYTIC, 50V 1UF M
C585	24109103	CERAMIC CHIP, 50V B 0.01UF K
C601	24109102	CERAMIC CHIP, 50V B 1000PF K
C602	24109102	CERAMIC CHIP, 50V B 1000PF K
C603	24669100	ELECTROLYTIC, 50V 10UF M 3A
C604	24669100	ELECTROLYTIC, 50V 10UF M 3A
C605	24667470	ELECTROLYTIC, 25V 47UF M 3A
C606	24667470	ELECTROLYTIC, 25V 47UF M 3A
C607	24503041	PLASTIC FILM , 63V 0.1UF J
C608	24503041	PLASTIC FILM , 63V 0.1UF J
C609	24669102	ELECTROLYTIC, 50V 1000UF M 3A
C610	24669102	ELECTROLYTIC, 50V 1000UF M 3A
C611	24668101	ELECTROLYTIC, 35V 100UF M 3A
C612	24666221	ELECTROLYTIC, 16V 220UF M 3A
C613	24669100	ELECTROLYTIC, 50V 10UF M 3A
C614	24085944	ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L
C615	24085944	ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L
C661	24797479	ELECTROLYTIC, 50V 4.7UF M
C662	24797010	ELECTROLYTIC, 50V 1UF M
C663	24797010	ELECTROLYTIC, 50V 1UF M
C665	24109103	CERAMIC CHIP, 50V B 0.01UF K
C666	24797479	ELECTROLYTIC, 50V 4.7UF M
C667	24794100	ELECTROLYTIC, 16V 10UF M
C680	24669102	ELECTROLYTIC, 50V 1000UF M 3A
C681	24666100	ELECTROLYTIC, 10V 10UF M 3A
C682	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
C690	24109103	CERAMIC CHIP, 50V B 0.01UF K
C704	24232103	CERAMIC DISC, 50V F 0.01UF Z
C705	24206479	ELECTROLYTIC, 50V 4.7UF M 7L 3A
C707	24797470	ELECTROLYTIC, 50V 47UF M
C712	24797470	ELECTROLYTIC, 50V 47UF M
C713	24790470	ELECTROLYTIC, 160V 47UF M

Location No.	Parts No.	Description
C715	24214472	CERAMIC DISC, 500V B 4700PF K
C717	24214472	CERAMIC DISC, 500V B 4700PF K
C718	24666470	ELECTORLYTIC, 16V 47UF M 3A
C719	24435560	CERAMIC DISC, 500V SL 56PF J
C720	24790220	ELECTROLYTIC, 160V 22UF M
C721	24666470	ELECTORLYTIC, 16V 47UF M 3A
C721	24073052	ELECTROLYTIC, 25V 47UF M 3A
C722	24073052	ELECTROLYTIC, 25V 47UF M 3A
C723	24109103	CERAMIC CHIP, 50V B 0.01UF K
C724	24109103	CERAMIC CHIP, 50V B 0.01UF K
C726	24212102	CERAMIC DISC, 50V B 1000PF K
C760	24797470	ELECTROLYTIC, 50V 47UF M
C761	24212102	CERAMIC DISC, 50V B 1000PF K
C762	24797470	ELECTROLYTIC, 50V 47UF M
C765	24214472	CERAMIC DISC, 500V B 4700PF K
C766	24214472	CERAMIC DISC, 500V B 4700PF K
C767	24790470	ELECTROLYTIC, 160V 47UF M
C768	24666470	ELECTORLYTIC, 16V 47UF M 3A
C769	24666470	ELECTORLYTIC, 16V 47UF M 3A
C770	24435560	CERAMIC DISC, 500V SL 56PF J
C771	24790220	ELECTROLYTIC, 160V 22UF M
C780	24797470	ELECTROLYTIC, 50V 47UF M
C781	24212102	CERAMIC DISC, 50V B 1000PF K
C782	24797470	ELECTROLYTIC, 50V 47UF M
C784	24214472	CERAMIC DISC, 500V B 4700PF K
C786	24214472	CERAMIC DISC, 500V B 4700PF K
C787	24790470	ELECTROLYTIC, 160V 47UF M
C788	24666470	ELECTORLYTIC, 16V 47UF M 3A
C789	24666470	ELECTORLYTIC, 16V 47UF M 3A
C790	24435560	CERAMIC DISC, 500V SL 56PF J
C791	24790220	ELECTROLYTIC, 160V 22UF M
C801	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
C801	24503002	PLASTIC FILM, AC275V 0.22UF M
C802	24503002	PLASTIC FILM, AC275V 0.22UF M
C802	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C803	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C804	24617033	ELECTROLYTIC 04CH, 25V 4.7UF M
C805	24092281	CERAMIC DISC, AC250V E 4700PF
C805	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C806	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C809	24086067	ELECTROLYTIC 692Q, 200V 1000UF M 3F
C810	24086067	ELECTROLYTIC 692Q, 200V 1000UF M 3F
C811	24092597	CERAMIC DISC CK45E AC250V 4700PF M
C812	24092597	CERAMIC DISC CK45E AC250V 4700PF M
C813	24092597	CERAMIC DISC CK45E AC250V 4700PF M
C826	24503047	PLASTIC FILM, 63V 0.33UF J
C827	24073037	ELECTROLYTIC, 16V 47UF M 3A
C829	24503041	PLASTIC FILM , 63V 0.1UF J
C830	24073037	ELECTROLYTIC, 16V 47UF M 3A
C831	24503047	PLASTIC FILM, 63V 0.33UF J
C832	24073038	ELECTROLYTIC, 16V 100UF M 3A
C833	24073037	ELECTROLYTIC, 16V 47UF M 3A
C834	24503047	PLASTIC FILM, 63V 0.33UF J
C835	24073016	ELECTROLYTIC CE04P, 10V 100UF M 3A
C836	24617043	ELECTROLYTIC 04CH, 35V 1000UF M
C837	24214221	CERAMIC DISC, 500V B 220PF K
C838	24617006	ELECTROLYTIC, 25V 820UF M
C839	24503041	PLASTIC FILM , 63V 0.1UF J
C849	24666101	ELECTROLYTIC, 16V 100UF M 3A
C850	24668222	ELECTROLYTIC, 35V 2200UF M 3A
C851	24668222	ELECTROLYTIC, 35V 2200UF M 3A
C852	24073094	ELECTROLYTIC, 50V 1000UF M 3A
C853	24669331	ELECTROLYTIC, 50V 330UF M 3A
C860	24214103	CERAMIC DISC, 500V B 0.01UF K
C861	24214103	CERAMIC DISC, 500V B 0.01UF K

Location No.	Parts No.	Description
C862	24092341	CERAMIC DISC, 2KV R 470PF K
C863	24503045	PLASTIC FILM, 63V 0.22UF J
C866	24503053	PLASTIC FILM, 63V 1UF J
C867	24591472	PLASTIC FILM, 50V 4700PF J
C868	24669470	ELECTROLYTIC, 50V 47UF M 3A
C869	24678229	ELECTROLYTIC, 200V 2.2UF M 3A
C870	24503355	PLASTIC FILM, 800V 0.1UF J
C871	24092343	CERAMIC DISC, 2KV 680PF K
C873	24503045	PLASTIC FILM, 63V 0.22UF J
C874	24092337	CERAMIC DISC, 2KV 220PF K
C876	24503049	PLASTIC FILM, 63V 0.47UF J
C877	24092344	CERAMIC DISC, 2KV 820PF K
C879	24214102	CERAMIC DISC, 500V B 1000PF K
C880	24092339	CERAMIC DISC, 2KV 330PF K
C881	24092339	CERAMIC DISC, 2KV 330PF K
C882	24092339	CERAMIC DISC, 2KV 330PF K
C883	24092339	CERAMIC DISC, 2KV 330PF K
C884	24086916	ELECTROLYTIC, 160V 330UF M 3D
C885	24073095	ELECTROLYTIC, 50V 2200UF M 3A
C886	24591152	PLASTIC FILM, 50V 1500PF J
C887	24678478	ELECTROLYTIC, 200V 0.47UF M 3A
C888	24082229	PLASTIC FILM, 250V 0.1UF D
C891	24214471	CERAMIC DISC, 500V B 470PF K
C892	24214471	CERAMIC DISC, 500V B 470PF K
C893	24073060	ELECTROLYTIC, 25V 4700UF M 3A
C894	24073060	ELECTROLYTIC, 25V 4700UF M 3A
C898	24503041	PLASTIC FILM , 63V 0.1UF J
C901	24211102	CERAMIC DISC, 2KV B 1000PF K
C902	24794101	ELECTROLYTIC, 16V 100UF M
C903	24232103	CERAMIC DISC, 50V F 0.01UF Z
C904	24436221	CERAMIC DISC, 50V SL 220PF J
C906	24679220	ELECTROLYTIC, 250V 22UF M 3A
C907	24214101	CERAMIC DISC, 500V B 100PF K
C911	24211102	CERAMIC DISC, 2KV B 1000PF K
C912	24794101	ELECTROLYTIC, 16V 100UF M
C913	24232103	CERAMIC DISC, 50V F 0.01UF Z
C914	24436221	CERAMIC DISC, 50V SL 220PF J
C915	24679220	ELECTROLYTIC, 250V 22UF M 3A
C917	24214101	CERAMIC DISC, 500V B 100PF K
C921	24211102	CERAMIC DISC, 2KV B 1000PF K
C922	24794101	ELECTROLYTIC, 16V 100UF M
C923	24436221	CERAMIC DISC, 50V SL 220PF J
C924	24232103	CERAMIC DISC, 50V F 0.01UF Z
C925	24679220	ELECTROLYTIC, 250V 22UF M 3A
C926	24214101	CERAMIC DISC, 500V B 100PF K
C930	24214103	CERAMIC DISC, 500V B 0.01UF K
C935	24214103	CERAMIC DISC, 500V B 0.01UF K
C936	24214103	CERAMIC DISC, 500V B 0.01UF K
C961	24763102	ELECTROLYTIC, 16V 1000UF M
C962	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C967	24436471	CERAMIC DISC, 50V SL 470PF J
C2020	24109103	CERAMIC CHIP, 50V B 0.01UF K
C2102	24108100	CERAMIC CHIP, 50V SL 10PF D
C2103	24108100	CERAMIC CHIP, 50V SL 10PF D
C2104	24108100	CERAMIC CHIP, 50V SL 10PF D
C2110	24109103	CERAMIC CHIP, 50V B 0.01UF K
C2111	24763101	ELECTROLYTIC, 16V 100UF M
C2112	24109103	CERAMIC CHIP, 50V B 0.01UF K
C2113	24092731	CERAMIC CHIP, 16V B 1UF K
C3110	24092730	CERAMIC CHIP, 16V B 0.1UF K
C4401	24073039	ELECTROLYTIC, 16V 220UF M 3A
C4402	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4403	24073081	ELECTROLYTIC, 50V 1.OUF M 3A
C4404	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4405	24100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
C4406	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4407	24073039	ELECTROLYTIC, 16V 220UF M 3A
C4420	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4430	24073034	ELECTROLYTIC, 16V 10UF M 3A
C4603	24109471	CERAMIC CHIP, 50V B 470PF K
C4702	24109223	CERAMIC CHIP, 25V B 0.022UF K
C4703	24073082	ELECTROLYTIC, 50V 2.2UF M 3A
C4704	24092753	CERAMIC CHIP, 10V B 0.22UF K
C4705	24073082	ELECTROLYTIC, 50V 2.2UF M 3A
C4706	24109221	CERAMIC CHIP, 50V B 220PF K
C4707	24092730	CERAMIC CHIP, 16V B 0.1UF K
C4708	24073041	ELECTROLYTIC, 16V 470UF M 3A
C4709	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4710	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4711	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4712	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4713	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4714	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4715	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4716	24092730	CERAMIC CHIP, 16V B 0.1UF K
C4717	24073038	ELECTROLYTIC, 16V 100UF M 3A
C5020	24109103	CERAMIC CHIP, 50V B 0.01UF K
C5030	24763101	ELECTROLYTIC, 16V 100UF M
C5080	24797010	ELECTROLYTIC, 50V 1UF M
C5090	24763101	ELECTROLYTIC, 16V 100UF M
C5140	24666100	ELECTROLYTIC, 10V 10UF M 3A
C7701	24567334	PLASTIC FILM, 50V 0.33UF J
C7704	24073053	ELECTROLYTIC, 25V 100UF M 3A
C7705	24073053	ELECTROLYTIC, 25V 100UF M 3A
C7706	24567334	PLASTIC FILM, 50V 0.33UF J
C7721	24105102	CERAMIC CHIP, 25V CH 1000PF J
C7722	24105331	CERAMIC CHIP, 50V CH 330PF J
C7724	24073090	ELECTROLYTIC, 50V 100UF M 3A
C7725	24073090	ELECTROLYTIC, 50V 100UF M 3A
C7726	24105102	CERAMIC CHIP, 25V CH 1000PF J
C7727	24105331	CERAMIC CHIP, 50V CH 330PF J
C7729	24105102	CERAMIC CHIP, 25V CH 1000PF J
C7730	24105331	CERAMIC CHIP, 50V CH 330PF J
C7732	24105102	CERAMIC CHIP, 25V CH 1000PF J
C7733	24105331	CERAMIC CHIP, 50V CH 330PF J
C7735	24073090	ELECTROLYTIC, 50V 100UF M 3A
C7736	24073090	ELECTROLYTIC, 50V 100UF M 3A
C7737	24105102	CERAMIC CHIP, 25V CH 1000PF J
C7738	24105331	CERAMIC CHIP, 50V CH 330PF J
C7740	24105102	CERAMIC CHIP, 25V CH 1000PF J
C7741	24105331	CERAMIC CHIP, 50V CH 330PF J
C7766	24667221	ELECTROLYTIC, 25V 220UF M 3A
C7769	24109103	CERAMIC CHIP, 50V B 0.01UF K
C7774	24092730	CERAMIC CHIP, 16V B 0.1UF K
C7775	24092730	CERAMIC CHIP, 16V B 0.1UF K
C7776	24092730	CERAMIC CHIP, 16V B 0.1UF K
C7777	24092730	CERAMIC CHIP, 16V B 0.1UF K
C7779	24105331	CERAMIC CHIP, 50V CH 330PF J
C7780	24436471	CERAMIC DISC, 50V SL 470PF J
C7783	24436471	CERAMIC DISC, 50V SL 470PF J
C7788	24353101	CERAMIC DISC, 50V CH 100PF J
C7789	24591472	PLASTIC FILM, 50V 4700PF J
C7791	24073056	ELECTROLYTIC, 25V 470UF M 3A
C7792	24591472	PLASTIC FILM, 50V 4700PF J
C7793	24567104	PLASTIC FILM, 50V 0.1UF J
C7794	24567104	PLASTIC FILM, 50V 0.1UF J
C7795	24591222	PLASTIC FILM, 50V 2200PF J
C7796	24073091	ELECTROLYTIC, 50V 220UF M 3A
C7797	24073094	ELECTROLYTIC, 50V 1000UF M 3A
C7798	24073091	ELECTROLYTIC, 50V 220UF M 3A

Location No.	Parts No.	Description
C7810	24092511	CERAMIC CHIP, 50V CH 470PF B
C7811	24105561	CERAMIC CHIP, 50V CH 560PF J
C7813	24667101	ELECTROLYTIC, 25V 100UF M 3A
C7817	24591332	PLASTIC FILM, 50V 3300PF J
C7818	24591102	PLASTIC FILM, 50V 1000PF J
C7819	24591102	PLASTIC FILM, 50V 1000PF J
C7820	24591222	PLASTIC FILM, 50V 2200PF J
C7821	24669010	ELECTROLYTIC, 50V 1UF M 3A
C7822	24503053	PLASTIC FILM, 63V 1UF J
C9100	24436471	CERAMIC DISC, 50V SL 470PF J
C9200	24436471	CERAMIC DISC, 50V SL 470PF J
CA04	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA05	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA06	24109392	CERAMIC CHIP, 50V B 3900PF K
CA07	24109392	CERAMIC CHIP, 50V B 3900PF K
CA08	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA09	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA10	24105101	CERAMIC CHIP, 50V CH 100PF J
CA14	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA15	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA22	24105101	CERAMIC CHIP, 50V CH 100PF J
CA23	24105101	CERAMIC CHIP, 50V CH 100PF J
CA24	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA25	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CA27	24092538	CERAMIC CHIP, 10V F 1UF Z
CA28	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L
CA30	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L
CA31	24092538	CERAMIC CHIP, 10V F 1UF Z
CA33	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CA34	24092538	CERAMIC CHIP, 10V F 1UF Z
CA37	24105101	CERAMIC CHIP, 50V CH 100PF J
CA38	24105101	CERAMIC CHIP, 50V CH 100PF J
CA39	24105101	CERAMIC CHIP, 50V CH 100PF J
CA42	24109392	CERAMIC CHIP, 50V B 3900PF K
CA45	24105471	CERAMIC CHIP, 50V CH 470PF J
CA46	24105471	CERAMIC CHIP, 50V CH 470PF J
CA49	24105101	CERAMIC CHIP, 50V CH 100PF J
CA52	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA53	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA54	24092730	CERAMIC CHIP, 16V B 0.1UF K
CA55	24105101	CERAMIC CHIP, 50V CH 100PF J
CA59	24105101	CERAMIC CHIP, 50V CH 100PF J
CA60	24105101	CERAMIC CHIP, 50V CH 100PF J
CA61	24666220	ELECTROLYTIC, 16V 22UF M 3A
CA68	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA69	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA71	24105331	CERAMIC CHIP, 50V CH 330PF J
CA72	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L
CA73	24666100	ELECTROLYTIC, 10V 10UF M 3A
CA80	24503041	PLASTIC FILM , 63V 0.1UF J
CA81	24073015	ELECTROLYTIC, 10V 47UF M 3A
CA82	24503049	PLASTIC FILM, 63V 0.47UF J
CA251	24073015	ELECTROLYTIC, 10V 47UF M 3A
CA331	24073015	ELECTROLYTIC, 10V 47UF M 3A
CA371	24105820	CERAMIC CHIP, 50V CH 82PF J
CA381	24105820	CERAMIC CHIP, 50V CH 82PF J
CA391	24105820	CERAMIC CHIP, 50V CH 82PF J
CA611	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA701	24092538	CERAMIC CHIP, 10V F 1UF Z
CA705	24666100	ELECTROLYTIC, 10V 10UF M 3A
CB01	24794470	ELECTROLYTIC, 16V 47UF M
CB05	24666100	ELECTROLYTIC, 10V 10UF M 3A
CB13	24085970	ELECTROLYTIC, NONPOLAR, 16V 10UF M 7L
CB14	24105331	CERAMIC CHIP, 50V CH 330PF J
CB15	24794100	ELECTROLYTIC, 16V 10UF M

Location No.	Parts No.	Description
CB40	24092538	CERAMIC CHIP, 10V F 1UF Z
CB41	24109222	CERAMIC CHIP, 50V B 2200PF K
CB42	24105561	CERAMIC CHIP, 50V CH 560PF J
CB43	24109332	CERAMIC CHIP, 50V B 3300PF K
CB45	24092538	CERAMIC CHIP, 10V F 1UF Z
CB46	24109222	CERAMIC CHIP, 50V B 2200PF K
CB47	24105561	CERAMIC CHIP, 50V CH 560PF J
CB51	24590103	PLASTIC FILM, 50V 0.01UF J
CB52	24794470	ELECTROLYTIC, 16V 47UF M
CB53	24503041	PLASTIC FILM , 63V 0.1UF J
CB54	24436221	CERAMIC DISC, 50V SL 220PF J
CB55	24797010	ELECTROLYTIC, 50V 1UF M
CB56	24794470	ELECTROLYTIC, 16V 47UF M
CB58	24794470	ELECTROLYTIC, 16V 47UF M
CB59	24590103	PLASTIC FILM, 50V 0.01UF J
CB60	24794100	ELECTROLYTIC, 16V 10UF M
CB61	24503041	PLASTIC FILM , 63V 0.1UF J
CB62	24105331	CERAMIC CHIP, 50V CH 330PF J
CB90	24109103	CERAMIC CHIP, 50V B 0.01UF K
CB91	24666100	ELECTROLYTIC, 10V 10UF M 3A
CB501	24092730	CERAMIC CHIP, 16V B 0.1UF K
CB502	24666100	ELECTROLYTIC, 10V 10UF M 3A
CB503	24092730	CERAMIC CHIP, 16V B 0.1UF K
CB504	24666100	ELECTROLYTIC, 10V 10UF M 3A
CC01	24109102	CERAMIC CHIP, 50V B 1000PF K
CC01	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CC02	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CC02	24109102	CERAMIC CHIP, 50V B 1000PF K
CC03	24109102	CERAMIC CHIP, 50V B 1000PF K
CC03	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CC04	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CC04	24109102	CERAMIC CHIP, 50V B 1000PF K
CC05	24109102	CERAMIC CHIP, 50V B 1000PF K
CC06	24109102	CERAMIC CHIP, 50V B 1000PF K
CC07	24109102	CERAMIC CHIP, 50V B 1000PF K
CC08	24109102	CERAMIC CHIP, 50V B 1000PF K
CC11	24109102	CERAMIC CHIP, 50V B 1000PF K
CC12	24109102	CERAMIC CHIP, 50V B 1000PF K
CC20	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC21	24619102	ELECTROLYTIC, 16V 47UF M
CC40	24619102	ELECTROLYTIC, 16V 47UF M
CC42	24092730	CERAMIC CHIP, 16V B 0.1UF K
CC43	24092730	CERAMIC CHIP, 16V B 0.1UF K
CE01	24086061	ELECTROLYTIC, 200V 470UF M 3F
CE02	24092281	CERAMIC DISC, AC250V E 4700PF
CE03	24092281	CERAMIC DISC, AC250V E 4700PF
CE04	24092339	CERAMIC DISC, 2KV 330PF K
CE05	24095939	PLASTIC FILM, 1250VH 1000PF J
CE06	24212221	CERAMIC DISC, 50V B 220PF K
CE07	24503041	PLASTIC FILM , 63V 0.1UF J
CE08	24820153	PLASTIC FILM, 630V 0.015UF J
CE10	24669470	ELECTROLYTIC, 50V 47UF M 3A
CE11	24591681	PLASTIC FILM, 50V 680PF J
CE12	24214222	CERAMIC DISC, 500V B 2200PF K
CE13	24591563	PLASTIC FILM, 50V 0.056UF J
CE14	24666470	ELECTORLYTIC, 16V 47UF M 3A
CE15	24591103	PLASTIC FILM, 50V 0.01UF J
CE16	24092583	CERAMIC DISC, AC250V E 2200PF M
CE17	24092583	CERAMIC DISC, AC250V E 2200PF M
CE21	24503041	PLASTIC FILM , 63V 0.1UF J
CE30	24617043	ELECTROLYTIC 04CH, 35V 1000UF M
CE31	24214221	CERAMIC DISC, 500V B 220PF K
CE32	24539104	PLASTIC FILM, 50V 0.1UF J
CE33	24617030	ELECTROLYTIC, 16V 2200UF M
CE34	24539104	PLASTIC FILM, 50V 0.1UF J

Location No.	Parts No.	Description
CE35	24617015	ELECTROLYTIC 04CH, 10V 2200UF M
CE36	24794101	ELECTROLYTIC, 16V 100UF M
CE37	24567334	PLASTIC FILM, 50V 0.33UF J
CE38	24794470	ELECTROLYTIC, 16V 47UF M
CE39	24669339	ELECTROLYTIC, 50V 3.3UF M
CE41	24503047	PLASTIC FILM, 63V 0.33UF J
CE42	24666470	ELECTORLYTIC, 16V 47UF M 3A
CE43	24794470	ELECTROLYTIC, 16V 47UF M
CE44	24567334	PLASTIC FILM, 50V 0.33UF J
CE45	24794470	ELECTROLYTIC, 16V 47UF M
CE46	24567104	PLASTIC FILM, 50V 0.1UF J
CE47	24666220	ELECTROLYTIC, 16V 22UF M 3A
CE50	24617044	ELECTROLYTIC, 35V 2200UF M
CE51	24214221	CERAMIC DISC, 500V B 220PF K
CE52	24539104	PLASTIC FILM, 50V 0.1UF J
CE53	24617040	ELECTROLYTIC, 25V 1000UF M 3D
CE54	24539104	PLASTIC FILM, 50V 0.1UF J
CE55	24617040	ELECTROLYTIC, 25V 1000UF M 3D
CE56	24539104	PLASTIC FILM, 50V 0.1UF J
CE57	24666220	ELECTROLYTIC, 16V 22UF M 3A
CE58	24669100	ELECTROLYTIC, 50V 10UF M 3A
CE59	24212101	CERAMIC DISC, 50V B 100PF K
CE62	24676470	ELECTROLYTIC, 100V 47UF M 3A
CE71	24214471	CERAMIC DISC, 500V B 470PF K
CE72	24617044	ELECTROLYTIC, 35V 2200UF M
CE81	24214471	CERAMIC DISC, 500V B 470PF K
CE82	24073057	ELECTROLYTIC, 25V 1000UF M 3A
CE91	24214471	CERAMIC DISC, 500V B 470PF K
CE92	24073094	ELECTROLYTIC, 50V 1000UF M 3A
CG1	24619030	CHIP CHEMICON, 6.3V 470M
CG2	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG3	24619030	CHIP CHEMICON, 6.3V 470M
CG4	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG5	24100102	CERAMIC CHIP, 50V F 1000PF Z
CG6	24100102	CERAMIC CHIP, 50V F 1000PF Z
CG8	24619040	ELEC. CHIP, 16V 10UF M 3A
CG9	24619040	ELEC. CHIP, 16V 10UF M 3A
CG10	24619040	ELEC. CHIP, 16V 10UF M 3A
CG11	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG12	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG13	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG14	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG30	24619040	ELEC. CHIP, 16V 10UF M 3A
CG31	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG32	24619040	ELEC. CHIP, 16V 10UF M 3A
CG33	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG34	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG35	24619040	ELEC. CHIP, 16V 10UF M 3A
CG36	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG37	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG38	24619040	ELEC. CHIP, 16V 10UF M 3A
CG39	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG43	24619030	CHIP CHEMICON, 6.3V 470M
CG44	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG45	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG46	24619030	CHIP CHEMICON, 6.3V 470M
CG47	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG48	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG49	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG50	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG51	24619030	CHIP CHEMICON, 6.3V 470M
CG52	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG53	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG54	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG55	24092178	CERAMIC CHIP, 25V B 0.1UF K

Location No.	Parts No.	Description
CG56	24619030	CHIP CHEMICON, 6.3V 470M
CG57	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG58	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG59	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG60	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG61	24619030	CHIP CHEMICON, 6.3V 470M
CG62	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG63	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG64	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG65	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG66	24619030	CHIP CHEMICON, 6.3V 470M
CG67	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG68	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG69	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG70	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG71	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG72	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG73	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG74	24105150	CERAMIC CHIP, 50V CH 15PF J
CG75	24105150	CERAMIC CHIP, 50V CH 15PF J
CG76	24619030	CHIP CHEMICON, 6.3V 470M
CG77	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG78	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG79	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG80	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG81	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG82	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG83	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG84	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG85	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG86	24619030	CHIP CHEMICON, 6.3V 470M
CG88	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG89	24619030	CHIP CHEMICON, 6.3V 470M
CG91	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG92	24619046	ELECTROLYTIC, 16V 470UF
CG93	24105101	CERAMIC CHIP, 50V CH 100PF J
CG97	24100102	CERAMIC CHIP, 50V F 1000PF Z
CG98	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG99	24105101	CERAMIC CHIP, 50V CH 100PF J
CG100	24105101	CERAMIC CHIP, 50V CH 100PF J
CG104	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG105	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG106	24105101	CERAMIC CHIP, 50V CH 100PF J
CG113	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG114	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG115	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG116	24092178	CERAMIC CHIP, 25V B 0.1UF K
CG117	24619030	CHIP CHEMICON, 6.3V 470M
CG118	24105101	CERAMIC CHIP, 50V CH 100PF J
CG119	24619046	ELECTROLYTIC, 16V 470UF
CG120	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG121	24619046	ELECTROLYTIC, 16V 470UF
CG122	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CG201	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG202	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG203	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG204	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG205	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG206	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG207	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG208	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
CG209	24761471	ELECTROLYTIC CE04G, 6.3V 470UF M
CG211	24073038	ELECTROLYTIC, 16V 100UF M 3A
CG212	24232103	CERAMIC DISC, 50V F 0.01UF Z
CG214	24073038	ELECTROLYTIC, 16V 100UF M 3A

Location No.	Parts No.	Description
CG215	24232103	CERAMIC DISC, 50V F 0.01UF Z
CI01	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI02	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI03	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI04	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI05	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI07	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI08	24797010	ELECTROLYTIC, 50V 1UF M
CI09	24105470	CERAMIC CHIP, 50V CH 47PF J
CI10	24105180	CERAMIC CHIP, 50V CH 18PF J
CI11	24105270	CERAMIC CHIP, 50V CH 27PF J
CI12	24797478	ELECTROLYTIC, 50V 0.47UF M
CI13	24109102	CERAMIC CHIP, 50V B 1000PF K
CI14	24105470	CERAMIC CHIP, 50V CH 47PF J
CI15	24105390	CERAMIC CHIP, 50V CH 39PF J
CI16	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI17	24092726	CERAMIC CHIP CK733B 16V 2,200,000PFK
CI18	24105181	CERAMIC CHIP, 50V CH 180PF J
CI21	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI23	24109103	CERAMIC CHIP, 50V B 0.01UF K
CI25	24105240	CERAMIC CHIP, 50V CH 24PF J
CI51	24797220	ELECTROLYTIC, 50V 22UF M
CI52	24794101	ELECTROLYTIC, 16V 100UF M
CI53	24797339	ELECTROLYTIO, 50V 3.3UF M
CR41	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR42	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR43	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CS01	24797229	ELECTROLYTIC, 50V 2.2UF M
CS02	24797229	ELECTROLYTIC, 50V 2.2UF M
CS03	24797229	ELECTROLYTIC, 50V 2.2UF M
CS04	24797229	ELECTROLYTIC, 50V 2.2UF M
CS05	24797229	ELECTROLYTIC, 50V 2.2UF M
CS06	24797229	ELECTROLYTIC, 50V 2.2UF M
CS07	24797229	ELECTROLYTIC, 50V 2.2UF M
CS08	24797229	ELECTROLYTIC, 50V 2.2UF M
CS09	24797229	ELECTROLYTIC, 50V 2.2UF M
CS10	24797229	ELECTROLYTIC, 50V 2.2UF M
CS11	24797229	ELECTROLYTIC, 50V 2.2UF M
CS12	24797229	ELECTROLYTIC, 50V 2.2UF M
CS13	24794100	ELECTROLYTIC, 16V 10UF M
CS14	24794100	ELECTROLYTIC, 16V 10UF M
CS15	24797229	ELECTROLYTIC, 50V 2.2UF M
CS16	24797229	ELECTROLYTIC, 50V 2.2UF M
CS19	24797479	ELECTROLYTIC, 50V 4.7UF M
CS20	24669478	ELECTROLYTIC, 50V 0.47UF M 3A
CS21	24797479	ELECTROLYTIC, 50V 4.7UF M
CS22	24797479	ELECTROLYTIC, 50V 4.7UF M
CS24	24797229	ELECTROLYTIC, 50V 2.2UF M
CS25	24794470	ELECTROLYTIC, 16V 47UF M
CS26	24085944	ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L
CS27	24085944	ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L
CS28	24085944	ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L
CS29	24085944	ELECTROLYTIC, NONPOLAR, 50V 2.2UF M 11L
CS30	24797229	ELECTROLYTIC, 50V 2.2UF M
CS31	24797229	ELECTROLYTIC, 50V 2.2UF M
CS122	24797101	ELECTROLYTIC, 50V 100UF M
CS123	24797470	ELECTROLYTIC, 50V 47UF M
CV01	24092621	CERAMIC CHIP, 10V B 1UF K
CV02	24092621	CERAMIC CHIP, 10V B 1UF K
CV03	24092621	CERAMIC CHIP, 10V B 1UF K
CV04	24100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
CV05	24092621	CERAMIC CHIP, 10V B 1UF K
CV06	24092621	CERAMIC CHIP, 10V B 1UF K
CV07	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV08	24794101	ELECTROLYTIC, 16V 100UF M
CV09	24092621	CERAMIC CHIP, 10V B 1UF K
CV10	24794100	ELECTROLYTIC, 16V 10UF M
CV11	24092621	CERAMIC CHIP, 10V B 1UF K
CV12	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV13	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV13	24794100	ELECTROLYTIC, 16V 10UF M
CV14	24092621	CERAMIC CHIP, 10V B 1UF K
CV14	24232103	CERAMIC DISC, 50V F 0.01UF Z
CV15	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV15	24232103	CERAMIC DISC, 50V F 0.01UF Z
CV23	24794101	ELECTROLYTIC, 16V 100UF M
CV24	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV37	24797339	ELECTROLYTIO, 50V 3.3UF M
CV38	24109102	CERAMIC CHIP, 50V B 1000PF K
CV39	24109102	CERAMIC CHIP, 50V B 1000PF K
CV40	24794101	ELECTROLYTIC, 16V 100UF M
CV42	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV45	24092621	CERAMIC CHIP, 10V B 1UF K
CV46	24092621	CERAMIC CHIP, 10V B 1UF K
CV47	24092621	CERAMIC CHIP, 10V B 1UF K
CV48	24109332	CERAMIC CHIP, 50V B 3300PF K
CV64	24794471	ELECTROLYTIC, 16V 470UF M
CV65	24794101	ELECTROLYTIC, 16V 100UF M
CV66	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV67	24794100	ELECTROLYTIC, 16V 10UF M
CV68	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV69	24794100	ELECTROLYTIC, 16V 10UF M
CV73	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV78	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV238	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV244	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV245	24092441	CERAMIC CHIP, 16V F 1UF Z
CV246	24092441	CERAMIC CHIP, 16V F 1UF Z
CV247	24092441	CERAMIC CHIP, 16V F 1UF Z
CV248	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV249	24092441	CERAMIC CHIP, 16V F 1UF Z
CV250	24092441	CERAMIC CHIP, 16V F 1UF Z
CV251	24092441	CERAMIC CHIP, 16V F 1UF Z
CV252	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV253	24092441	CERAMIC CHIP, 16V F 1UF Z
CV254	24092441	CERAMIC CHIP, 16V F 1UF Z
CV255	24092441	CERAMIC CHIP, 16V F 1UF Z
CV256	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV257	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
CV258	24666471	ELECTROLYTIC, 16V 470UF M 3A
CV259	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV261	24109103	CERAMIC CHIP, 50V B 0.01UF K
CV263	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY101	24092441	CERAMIC CHIP, 16V F 1UF Z
CY102	24794101	ELECTROLYTIC, 16V 100UF M
CY103	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CY104	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY105	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY106	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY107	24794100	ELECTROLYTIC, 16V 10UF M
CY108	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CY109	24105101	CERAMIC CHIP, 50V CH 100PF J
CY111	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY112	24105181	CERAMIC CHIP, 50V CH 180PF J
CY113	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY114	24109103	CERAMIC CHIP, 50V B 0.01UF K

Location No.	Parts No.	Description
CY115	24105390	CERAMIC CHIP, 50V CH 39PF J
CY116	24105470	CERAMIC CHIP, 50V CH 47PF J
CY117	24105180	CERAMIC CHIP, 50V CH 18PF J
CY501	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY502	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY504	24109222	CERAMIC CHIP, 50V B 2200PF K
CY505	24105120	CERAMIC CHIP, 50V CH 12PF J
CY506	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY508	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY512	24092463	CERAMIC CHIP, 16V B 0.22UF K
CY513	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY514	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY515	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY516	24109103	CERAMIC CHIP, 50V B 0.01UF K
CY517	24092731	CERAMIC CHIP, 16V B 1UF K
CY524	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY525	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY526	24092730	CERAMIC CHIP, 16V B 0.1UF K
CY538	24794101	ELECTROLYTIC, 16V 100UF M
CY539	24794102	ELECTROLYTIC, 16V 1000UF M
CY582	24105101	CERAMIC CHIP, 50V CH 100PF J
RESISTORS		
R119	24011202	CHIP, METAL FILM, 1/20W 2K OHM J
R150	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R153	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R173	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R174	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R201	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R202	24872102	CHIP, METAL FILM, 1/16W 1K OHM J
R203	24872102	CHIP, METAL FILM, 1/16W 1K OHM J
R204	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R205	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
R207	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R208	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R209	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R210	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R210	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R211	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R211	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R212	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R212	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R213	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R213	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R214	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R215	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R216	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R217	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R218	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R219	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R220	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R221	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R222	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R223	24011302	CHIP, METAL FILM, 1/20W 3K OHM J
R224	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
R225	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
R226	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
R227	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
R228	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
R229	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
R230	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R231	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R232	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R233	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R234	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J

Location No.	Parts No.	Description
R235	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
R236	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
R237	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
R238	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
R239	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
R240	24367153	CARBON FILM, 1/6W 15K OHM G
R240	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R241	24367223	CARBON FILM, 1/6W 22K OHM G
R241	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R242	24367223	CARBON FILM, 1/6W 22K OHM G
R242	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R243	24367333	CARBON FILM, 1/6W 33K OHM G
R243	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R244	24366124	CARBON FILM, 1/6W 120K OHM J
R244	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R245	24366472	CARBON FILM, 1/6W 4.7K OHM J
R245	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R245	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R246	24366472	CARBON FILM, 1/6W 4.7K OHM J
R246	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R247	24366102	CARBON FILM, 1/6W 1K OHM J
R247	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R248	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R249	24366474	CARBON FILM, 1/6W 470K OHM J
R249	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R250	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R251	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R252	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R253	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R254	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R255	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R256	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R257	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R258	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R259	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R264	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R265	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R266	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R286	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R287	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R288	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
R302	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R305	24322109	OXIDE METAL FILM, 1W 1 OHM J
R306	24011822	CHIP, METAL FILM, 1/20W 8.2K OHM J
R307	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R308	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R311	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R312	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R314	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R315	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R321	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R322	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R325	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R330	24000633	METAL FILM, 1/4W 10K OHM F
R331	24000633	METAL FILM, 1/4W 10K OHM F
R334	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R335	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R336	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R337	24321129	OXIDE METAL FILM, 1/2W 1.2 OHM J
R338	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R340	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R341	24011183	CHIP, METAL FILM, 1/20W 18K OHM J
R343	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R344	24382151	OXIDE METAL FILM, 1W 150 OHM J
R345	24000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
R346	24382391	OXIDE METAL FILM, 1W 390 OHM J
R348	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R349	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R350	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R355	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R357	24872101	CHIP, METAL FILM, 1/16W 100 OHM J
R360	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R361	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R362	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R363	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R364	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R365	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R366	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R367	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R368	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R369	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R370	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R371	24011823	CHIP, METAL FILM, 1/20W 82K OHM J
R372	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R373	24011823	CHIP, METAL FILM, 1/20W 82K OHM J
R374	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R375	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R376	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R378	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R390	24382561	OXIDE METAL FILM, 1W 560 OHM J
R391	24382561	OXIDE METAL FILM, 1W 560 OHM J
R392	24382561	OXIDE METAL FILM, 1W 560 OHM J
R403	24553101	OXIDE METAL FILM, 1W 100 OHM J
R404	24366272	CARBON FILM, 1/6W 2.7K OHM J
R405	24366101	CARBON FILM, 1/6W 100 OHM J
R406	24382682	OXIDE METAL FILM, 1W 6.8K OHM J
R407	24381100	OXIDE METAL FILM, 1/2W 10 OHM J
R409	24555220	OXIDE METAL FILM, 3W 22 OHM J
R410	24555220	OXIDE METAL FILM, 3W 22 OHM J
R411	24323479	METAL FILM, 2W 4.7 OHM J
R412	24383153	OXIDE METAL FILM, 2W 15K OHM J
R413	24366101	CARBON FILM, 1/6W 100 OHM J
R414	24019259	FUSIBLE, 1/4W 27 OHM G
R415	24366102	CARBON FILM, 1/6W 1K OHM J
R416	24383101	OXIDE METAL FILM, 2W 100 OHM J
R417	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R418	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R419	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R420	24366103	CARBON FILM, 1/6W 10K OHM J
R421	24366223	CARBON FILM, 1/6W 22K OHM J
R422	24366223	CARBON FILM, 1/6W 22K OHM J
R423	24942102	CARBON COMPOSITION, 1/2W 1K OHM J
R424	24376104	CARBON FILM, 1/2W 10OK OHM J
R425	24376104	CARBON FILM, 1/2W 10OK OHM J
R426	24366101	CARBON FILM, 1/6W 100 OHM J
R427	24366101	CARBON FILM, 1/6W 100 OHM J
R428	24377224	CARBON FILM, 1W 220K OHM J
R429	24942102	CARBON COMPOSITION, 1/2W 1K OHM J
R431	24383102	OXIDE METAL FILM, 2W 1K OHM J
R432	24376274	CARBON FILM, 1/2W 270K OHM J
R433	24376274	CARBON FILM, 1/2W 270K OHM J
R433	24366681	CARBON FILM, 1/6W 680 OHM J
R434	24376274	CARBON FILM, 1/2W 270K OHM J
R434	24366472	CARBON FILM, 1/6W 4.7K OHM J
R435	24366332	CARBON FILM, 1/6W 3.3K OHM J
R436	24366473	CARBON FILM, 1/6W 47K OHM J
R437	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R438	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R439	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R440	24011103	CHIP, METAL FILM, 1/20W 10K OHM J

Location No.	Parts No.	Description
R441	24533331	FUSIBLE, 2W 330 OHM J
R443	24310109	OXIDE METAL FILM, 1/2W 1 OHM J
R444	24322398	OXIDE METAL FILM, 1W 0.39 OHM J
R446	24366103	CARBON FILM, 1/6W 10K OHM J
R447	24382473	OXIDE METAL FILM, 1W 47K OHM J
R448	24366562	CARBON FILM, 1/6W 5.6K OHM J
R449	24366152	CARBON FILM, 1/6W 1.5K OHM J
R466	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R467	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R469	24366101	CARBON FILM, 1/6W 100 OHM J
R470	24366224	CARBON FILM, 1/6W 220K OHM J
R472	24366101	CARBON FILM, 1/6W 100 OHM J
R473	24366223	CARBON FILM, 1/6W 22K OHM J
R474	24376393	CARBON FILM, 1/2W 39K OHM J
R475	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R476	24366471	CARBON FILM, 1/6W 470 OHM J
R477	24366102	CARBON FILM, 1/6W 1K OHM J
R477	24000141	METAL FILM, 1/4W 220 OHM F
R480	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R481	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R481	24322478	OXIDE METAL FILM, 1W 0.47 OHM J
R482	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R482	24552271	OXIDE METAL FILM, 1/2W 270 OHM J
R483	24552151	OXIDE METAL FILM, 1/2W 150 OHM J
R484	24366102	CARBON FILM, 1/6W 1K OHM J
R490	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R491	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R492	24000360	METAL FILM, 1/4W 1.2K OHM F
R493	24000141	METAL FILM, 1/4W 220 OHM F
R494	24000147	METAL FILM, 1/4W 470 OHM F
R495	24366333	CARBON FILM, 1/6W 33K OHM J
R496	24366103	CARBON FILM, 1/6W 10K OHM J
R497	24366100	CARBON FILM, 1/6W 10 OHM J
R498	24366103	CARBON FILM, 1/6W 10K OHM J
R499	24366102	CARBON FILM, 1/6W 1K OHM J
R513	24366101	CARBON FILM, 1/6W 100 OHM J
R513	24000445	CHIP JUMPER, 1608TYPE
R515	24366103	CARBON FILM, 1/6W 10K OHM J
R520	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R521	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R523	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R524	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R525	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R526	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R527	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R528	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R530	24000445	CHIP JUMPER, 1608TYPE
R531	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R537	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R538	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R539	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
R541	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R542	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R543	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R544	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R545	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R546	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
R547	24011680	CHIP, METAL FILM, 1/20W 68 OHM J
R548	24011680	CHIP, METAL FILM, 1/20W 68 OHM J
R549	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R553	24011680	CHIP, METAL FILM, 1/20W 68 OHM J
R561	24552181	OXIDE METAL FILM, 1/2W 180 OHM J
R562	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R563	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R569	24011224	CHIP, METAL FILM, 1/20W 220K OHM J

Location No.	Parts No.	Description
R570	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R571	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R575	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R576	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R577	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R586	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R587	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R588	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R589	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R590	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R591	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R601	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R602	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R603	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R604	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R609	24366339	CARBON FILM, 1/6W 3.3 OHM J
R610	24366339	CARBON FILM, 1/6W 3.3 OHM J
R613	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R661	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R662	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R663	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R665	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R666	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R667	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R668	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R671	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R672	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R673	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R674	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R682	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
R683	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R684	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R687	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R688	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R689	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R690	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R691	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R692	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R693	24000445	CHIP JUMPER, 1608TYPE
R702	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R709	24366563	CARBON FILM, 1/6W 56K OHM J
R713	24366273	CARBON FILM, 1/6W 27K OHM J
R715	24366333	CARBON FILM, 1/6W 33K OHM J
R716	24366273	CARBON FILM, 1/6W 27K OHM J
R717	24366333	CARBON FILM, 1/6W 33K OHM J
R718	24366101	CARBON FILM, 1/6W 100 OHM J
R719	24366100	CARBON FILM, 1/6W 10 OHM J
R720	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R721	24546919	FUSIBLE, 1/2W 9.1 OHM J
R722	24546919	FUSIBLE, 1/2W 9.1 OHM J
R722	24552471	OXIDE METAL FILM, 1/2W 470 OHM J
R723	24366101	CARBON FILM, 1/6W 100 OHM J
R723	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R724	24366151	CARBON FILM, 1/6W 150 OHM J
R724	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R725	24366332	CARBON FILM, 1/6W 3.3K OHM J
R730	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R731	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R732	24366470	CARBON FILM, 1/6W 47 OHM J
R733	24366683	CARBON FILM, 1/6W 68K OHM J
R734	24366470	CARBON FILM, 1/6W 47 OHM J
R735	24366683	CARBON FILM, 1/6W 68K OHM J
R736	24553330	OXIDE METAL FILM, 1W 33 OHM J
R737	24366751	CARBON FILM, 1/6W 750 OHM J
R738	24366102	CARBON FILM, 1/6W 1K OHM J

Location No.	Parts No.	Description
R739	24366751	CARBON FILM, 1/6W 750 OHM J
R740	24553330	OXIDE METAL FILM, 1W 33 OHM J
R741	24322229	OXIDE METAL FILM, 1W 2.2 OHM J
R742	24321229	OXIDE METAL FILM, 1/2W 2.2 OHM J
R743	24554221	OXIDE METAL FILM, 2W 220 OHM J
R744	24366122	CARBON FILM, 1/6W 1.2K OHM J
R745	24366122	CARBON FILM, 1/6W 1.2K OHM J
R761	24366273	CARBON FILM, 1/6W 27K OHM J
R762	24366563	CARBON FILM, 1/6W 56K OHM J
R763	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R764	24366470	CARBON FILM, 1/6W 47 OHM J
R765	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R766	24366470	CARBON FILM, 1/6W 47 OHM J
R767	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R768	24366751	CARBON FILM, 1/6W 750 OHM J
R769	24366122	CARBON FILM, 1/6W 1.2K OHM J
R770	24553330	OXIDE METAL FILM, 1W 33 OHM J
R771	24322229	OXIDE METAL FILM, 1W 2.2 OHM J
R772	24366683	CARBON FILM, 1/6W 68K OHM J
R773	24366683	CARBON FILM, 1/6W 68K OHM J
R774	24366751	CARBON FILM, 1/6W 750 OHM J
R775	24366122	CARBON FILM, 1/6W 1.2K OHM J
R776	24553330	OXIDE METAL FILM, 1W 33 OHM J
R777	24321229	OXIDE METAL FILM, 1/2W 2.2 OHM J
R778	24366102	CARBON FILM, 1/6W 1K OHM J
R779	24554221	OXIDE METAL FILM, 2W 220 OHM J
R781	24366273	CARBON FILM, 1/6W 27K OHM J
R782	24366563	CARBON FILM, 1/6W 56K OHM J
R783	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R784	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R785	24366470	CARBON FILM, 1/6W 47 OHM J
R786	24366751	CARBON FILM, 1/6W 750 OHM J
R787	24366122	CARBON FILM, 1/6W 1.2K OHM J
R788	24366683	CARBON FILM, 1/6W 68K OHM J
R789	24366683	CARBON FILM, 1/6W 68K OHM J
R790	24366751	CARBON FILM, 1/6W 750 OHM J
R791	24366122	CARBON FILM, 1/6W 1.2K OHM J
R792	24366102	CARBON FILM, 1/6W 1K OHM J
R793	24321229	OXIDE METAL FILM, 1/2W 2.2 OHM J
R794	24553330	OXIDE METAL FILM, 1W 33 OHM J
R795	24322229	OXIDE METAL FILM, 1W 2.2 OHM J
R796	24554221	OXIDE METAL FILM, 2W 220 OHM J
R797	24366470	CARBON FILM, 1/6W 47 OHM J
R798	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R799	24553330	OXIDE METAL FILM, 1W 33 OHM J
R810	24007061	CERAMIC COVERED, 2W 1.8 OHM K
R818	24366102	CARBON FILM, 1/6W 1K OHM J
R819	24366103	CARBON FILM, 1/6W 10K OHM J
R834	24000147	METAL FILM, 1/4W 470 OHM F
R835	24000167	METAL FILM, 1/4W 56 OHM F 50P
R836	24366102	CARBON FILM, 1/6W 1K OHM J
R842	24376563	CARB0N FILM, 1/2W 56K OHM J
R843	24376563	CARB0N FILM, 1/2W 56K OHM J
R844	24366103	CARBON FILM, 1/6W 10K OHM J
R849	24366101	CARBON FILM, 1/6W 100 OHM J
R860	24383153	OXIDE METAL FILM, 2W 15K OHM J
R861	24383153	OXIDE METAL FILM, 2W 15K OHM J
R862	24321689	OXIDE METAL FILM, 1/2W 6.8 OHM J
R864	24552102	OXIDE METAL FILM, 1/2W 1K OHM J
R865	24552390	OXIDE METAL FILM, 1/2W 39 OHM J
R866	24366472	CARBON FILM, 1/6W 4.7K OHM J
R867	24366223	CARBON FILM, 1/6W 22K OHM J
R868	24552470	OXIDE METAL FILM, 1/2W 47 OHM J
R870	24381151	OXIDE METAL FILM, 1/2W 150 OHM J
R871	24382680	OXIDE METAL FILM, 1W 68 OHM J

Location No.	Parts No.	Description
R873	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R874	24366150	CARBON FILM, 1/6W 15 OHM J
R881	24366152	CARBON FILM, 1/6W 1.5K OHM J
R882	24366101	CARBON FILM, 1/6W 100 OHM J
R883	24381682	OXIDE METAL FILM, 1/2W 6.8K OHM J
R885	24366102	CARBON FILM, 1/6W 1K OHM J
R886	24366332	CARBON FILM, 1/6W 3.3K OHM J
R893	24366472	CARBON FILM, 1/6W 4.7K OHM J
R894	24366103	CARBON FILM, 1/6W 10K OHM J
R899	24010001	CARBON FILM, 1/2W 3.9M OHM J
R900	24000907	FUSIBLE, 1W 3.9 OHM J
R901	24366331	CARBON FILM, 1/6W 330 OHM J
R903	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
R905	24366270	CARBON FILM, 1/6W 27 OHM J
R906	24366271	CARBON FILM, 1/6W 270 OHM J
R908	24366680	CARBON FILM, 1/6W 68 OHM J
R909	24366180	CARBON FILM, 1/6W 18 OHM J
R911	24366331	CARBON FILM, 1/6W 330 OHM J
R913	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
R915	24366270	CARBON FILM, 1/6W 27 OHM J
R916	24366271	CARBON FILM, 1/6W 270 OHM J
R918	24366680	CARBON FILM, 1/6W 68 OHM J
R919	24366180	CARBON FILM, 1/6W 18 OHM J
R920	24366222	CARBON FILM, 1/6W 2.2K OHM J
R921	24366331	CARBON FILM, 1/6W 330 OHM J
R923	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
R925	24366180	CARBON FILM, 1/6W 18 OHM J
R926	24366271	CARBON FILM, 1/6W 270 OHM J
R927	24366100	CARBON FILM, 1/6W 10 OHM J
R928	24366680	CARBON FILM, 1/6W 68 OHM J
R929	24366270	CARBON FILM, 1/6W 27 OHM J
R930	24366222	CARBON FILM, 1/6W 2.2K OHM J
R931	24383153	OXIDE METAL FILM, 2W 15K OHM J
R932	24383153	OXIDE METAL FILM, 2W 15K OHM J
R933	24366560	CARBON FILM, 1/6W 56 OHM J
R934	24383153	OXIDE METAL FILM, 2W 15K OHM J
R935	24383153	OXIDE METAL FILM, 2W 15K OHM J
R936	24383153	OXIDE METAL FILM, 2W 15K OHM J
R937	24383153	OXIDE METAL FILM, 2W 15K OHM J
R938	24366150	CARBON FILM, 1/6W 15 OHM J
R941	24383153	OXIDE METAL FILM, 2W 15K OHM J
R942	24383153	OXIDE METAL FILM, 2W 15K OHM J
R943	24366560	CARBON FILM, 1/6W 56 OHM J
R944	24383153	OXIDE METAL FILM, 2W 15K OHM J
R945	24366150	CARBON FILM, 1/6W 15 OHM J
R946	24383153	OXIDE METAL FILM, 2W 15K OHM J
R947	24383153	OXIDE METAL FILM, 2W 15K OHM J
R948	24366222	CARBON FILM, 1/6W 2.2K OHM J
R949	24383153	OXIDE METAL FILM, 2W 15K OHM J
R950	24366222	CARBON FILM, 1/6W 2.2K OHM J
R951	24383153	OXIDE METAL FILM, 2W 15K OHM J
R952	24383153	OXIDE METAL FILM, 2W 15K OHM J
R953	24366560	CARBON FILM, 1/6W 56 OHM J
R954	24383153	OXIDE METAL FILM, 2W 15K OHM J
R955	24383153	OXIDE METAL FILM, 2W 15K OHM J
R956	24383153	OXIDE METAL FILM, 2W 15K OHM J
R957	24383153	OXIDE METAL FILM, 2W 15K OHM J
R958	24366150	CARBON FILM, 1/6W 15 OHM J
R961	24366122	CARBON FILM, 1/6W 1.2K OHM J
R962	24366471	CARBON FILM, 1/6W 470 OHM J
R963	24366100	CARBON FILM, 1/6W 10 OHM J
R964	24366332	CARBON FILM, 1/6W 3.3K OHM J
R965	24366101	CARBON FILM, 1/6W 100 OHM J
R966	24366331	CARBON FILM, 1/6W 330 OHM J
R967	24366681	CARBON FILM, 1/6W 680 OHM J

Location No.	Parts No.	Description
R968	24366222	CARBON FILM, 1/6W 2.2K OHM J
R978	24366222	CARBON FILM, 1/6W 2.2K OHM J
R987	24366101	CARBON FILM, 1/6W 100 OHM J
R988	24366222	CARBON FILM, 1/6W 2.2K OHM J
R991	24366222	CARBON FILM, 1/6W 2.2K OHM J
R992	24366222	CARBON FILM, 1/6W 2.2K OHM J
R995	24366330	CARBON FILM, 1/6W 33 OHM J
R2020	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2030	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
R2040	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2060	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R2104	24011302	CHIP, METAL FILM, 1/20W 3K OHM J
R2105	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2106	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2107	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2108	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R2109	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R2110	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R2111	24011560	CHIP, METAL FILM, 1/20W 56 OHM J
R2112	24011560	CHIP, METAL FILM, 1/20W 56 OHM J
R2113	24011560	CHIP, METAL FILM, 1/20W 56 OHM J
R2149	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2150	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2151	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2152	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2153	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2154	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2155	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2156	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2157	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2158	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R2159	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R2160	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R2161	24871472	CHIP, METAL FILM, 1/8W 4.7K OHM J
R2162	24871562	CHIP, METAL FILM, 1/8W 5.6K OHM J
R2163	24011121	CHIP, METAL FILM, 1/20W 120 OHM J
R2164	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R2165	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R2166	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R2167	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R2168	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
R4401	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R4403	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4405	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4406	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4407	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
R4409	24871472	CHIP, METAL FILM, 1/8W 4.7K OHM J
R4411	24000445	CHIP JUMPER, 1608TYPE
R4412	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4413	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
R4430	24381150	OXIDE METAL FILM, 1/2W 15 OHM J
R4431	24366102	CARBON FILM, 1/6W 1K OHM J
R4605	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R4701	24011361	CHIP, METAL FILM, 1/20W 360 OHM J
R4702	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R4704	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4705	24011474	CHIP, METAL FILM, 1/20W 470K OHM J
R4708	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4709	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R4710	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4711	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4712	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4714	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4715	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R4716	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J

Location No.	Parts No.	Description
R4717	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R5020	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R5030	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7701	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7707	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7708	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7710	24384221	METAL OXIDE FILM, 3W 220 J
R7711	24547189	FUSIBLE, 1W 1.8 OHM J
R7712	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7713	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7715	24384221	METAL OXIDE FILM, 3W 220 J
R7716	24547189	FUSIBLE, 1W 1.8 OHM J
R7717	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7718	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7720	24384221	METAL OXIDE FILM, 3W 220 J
R7721	24547189	FUSIBLE, 1W 1.8 OHM J
R7722	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7723	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7725	24384221	METAL OXIDE FILM, 3W 220 J
R7726	24547189	FUSIBLE, 1W 1.8 OHM J
R7727	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7728	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7730	24384221	METAL OXIDE FILM, 3W 220 J
R7731	24547189	FUSIBLE, 1W 1.8 OHM J
R7732	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7733	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7735	24384221	METAL OXIDE FILM, 3W 220 J
R7736	24547189	FUSIBLE, 1W 1.8 OHM J
R7767	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R7775	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7776	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7777	24011474	CHIP, METAL FILM, 1/20W 470K OHM J
R7778	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7779	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R7781	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R7786	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7788	24366221	CARBON FILM, 1/6W 220 OHM J
R7790	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7799	24011684	CHIP, METAL FILM, 1/20W 680K OHM J
R7836	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7837	24366470	CARBON FILM, 1/6W 47 OHM J
R7841	24366101	CARBON FILM, 1/6W 100 OHM J
R7842	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7843	24366681	CARBON FILM, 1/6W 680 OHM J
R7844	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7845	24366681	CARBON FILM, 1/6W 680 OHM J
R7846	24366103	CARBON FILM, 1/6W 10K OHM J
R7847	24366103	CARBON FILM, 1/6W 10K OHM J
R7848	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7861	24366472	CARBON FILM, 1/6W 4.7K OHM J
R7862	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7864	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7865	24366471	CARBON FILM, 1/6W 470 OHM J
R7868	24011752	CHIP, METAL FILM, 1/20W 7.5K OHM J
R7872	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7880	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
R7881	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7882	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7883	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R7890	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
R7891	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
R7903	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7904	24000203	METAL FILM, 1/4W 27K OHM F
R7906	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R7907	24011104	CHIP, METAL FILM, 1/20W 100K OHM J

Location No.	Parts No.	Description
R7908	24366222	CARBON FILM, 1/6W 2.2K OHM J
R7909	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R7910	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R7911	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
R7912	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R7913	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
R7914	24381182	OXIDE METAL FILM, 1/2W 1.8K OHM J
R7921	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7922	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7923	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7930	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R7932	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7942	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R7943	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R9501	24366101	CARBON FILM, 1/6W 100 OHM J
R9503	24366681	CARBON FILM, 1/6W 680 OHM J
R9507	24366330	CARBON FILM, 1/6W 33 OHM J
R9607	24366101	CARBON FILM, 1/6W 100 OHM J
R9608	24366681	CARBON FILM, 1/6W 680 OHM J
R9620	24366330	CARBON FILM, 1/6W 33 OHM J
RA01	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA02	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA03	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA04	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA05	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA07	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA08	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA09	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA10	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA12	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA13	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA14	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA15	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA16	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA17	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA19	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA20	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA21	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA22	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA23	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA24	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RA26	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA28	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA30	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA32	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RA35	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RA36	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA37	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA38	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA39	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA40	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA41	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA42	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RA43	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA44	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA45	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA46	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA49	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA50	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA51	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA52	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA53	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA54	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA55	24011102	CHIP, METAL FILM, 1/20W 1K OHM J

Location No.	Parts No.	Description
RA56	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA57	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA58	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA59	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA60	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA71	24366273	CARBON FILM, 1/6W 27K OHM J
RA72	24366153	CARBON FILM, 1/6W 15K OHM J
RA72	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RA73	24366822	CARBON FILM, 1/6W 8.2K OHM J
RA73	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RA74	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RA75	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RA76	24366822	CARBON FILM, 1/6W 8.2K OHM J
RA76	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA77	24366153	CARBON FILM, 1/6W 15K OHM J
RA77	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA78	24366273	CARBON FILM, 1/6W 27K OHM J
RA78	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA79	24366823	CARBON FILM, 1/6W 82K OHM J
RA79	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA80	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA81	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RA021	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA031	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA091	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RA141	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RA161	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA241	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RA361	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA374	24000445	CHIP JUMPER, 1608TYPE
RA384	24000445	CHIP JUMPER, 1608TYPE
RA394	24000445	CHIP JUMPER, 1608TYPE
RA401	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
RA431	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA703	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA705	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA708	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB01	24366391	CARBON FILM, 1/6W 390 OHM J
RB03	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RB04	24366473	CARBON FILM, 1/6W 47K OHM J
RB05	24366102	CARBON FILM, 1/6W 1K OHM J
RB05	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB14	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RB15	24366471	CARBON FILM, 1/6W 470 OHM J
RB15	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RB16	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RB17	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RB19	24366470	CARBON FILM, 1/6W 47 OHM J
RB37	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB38	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB39	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB40	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB41	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB42	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB43	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB44	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB45	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB46	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB47	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB48	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB51	24366224	CARBON FILM, 1/6W 220K OHM J
RB52	24366123	CARBON FILM, 1/6W 12K OHM J
RB53	24366123	CARBON FILM, 1/6W 12K OHM J
RB54	24366123	CARBON FILM, 1/6W 12K OHM J
RB55	24366224	CARBON FILM, 1/6W 220K OHM J

Location No.	Parts No.	Description
RB56	24366151	CARBON FILM, 1/6W 150 OHM J
RB57	24366103	CARBON FILM, 1/6W 10K OHM J
RB58	24366103	CARBON FILM, 1/6W 10K OHM J
RB59	24366122	CARBON FILM, 1/6W 1.2K OHM J
RB60	24366224	CARBON FILM, 1/6W 220K OHM J
RB61	24366100	CARBON FILM, 1/6W 10 OHM J
RB61	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB62	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB62	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB63	24366271	CARBON FILM, 1/6W 270 OHM J
RB64	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RB65	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB67	24366221	CARBON FILM, 1/6W 220 OHM J
RB69	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB70	24366331	CARBON FILM, 1/6W 330 OHM J
RB81	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RB82	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB83	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB84	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RB90	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB91	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RB92	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB93	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB94	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB95	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB96	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB97	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB98	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB031	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RB032	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RB033	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB051	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB052	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RB501	24998100	CHIP, 1/16W 10 OHM
RB502	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RB503	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RB504	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RB505	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB506	24998101	CHIP, 1/16W 100 OHM
RB507	24998101	CHIP, 1/16W 100 OHM
RB508	24998101	CHIP, 1/16W 100 OHM
RB509	24998101	CHIP, 1/16W 100 OHM
RB511	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB512	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RB516	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB517	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB518	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB519	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB520	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB521	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB522	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB523	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB524	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB525	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB526	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB528	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB529	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RB551	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB552	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RB553	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RB554	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB555	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB556	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB557	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB558	24011104	CHIP, METAL FILM, 1/20W 100K OHM J

Location No.	Parts No.	Description
RB559	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB560	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB561	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB562	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RB563	24998101	CHIP, 1/16W 100 OHM
RB564	24998101	CHIP, 1/16W 100 OHM
RB565	24998101	CHIP, 1/16W 100 OHM
RB566	24998101	CHIP, 1/16W 100 OHM
RC01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC02	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC02	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC03	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC03	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RC04	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC05	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC05	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC06	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC06	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC07	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC07	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC08	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RC08	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC09	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC09	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RC10	24872101	CHIP, METAL FILM, 1/16W 100 OHM J
RC10	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RC11	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RC12	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC22	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RC23	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RC28	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC43	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RC46	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RE01	24510229	CEMENT, 5W 2.2 OHM J
RE03	24322568	OXIDE METAL FILM, 1W 0.56 OHM J
RE04	24322568	OXIDE METAL FILM, 1W 0.56 OHM J
RE05	24381331	OXIDE FILM, 1/2W 330 J
RE06	24366152	CARBON FILM, 1/6W 1.5K OHM J
RE07	24366122	CARBON FILM, 1/6W 1.2K OHM J
RE08	24384683	METAL 0XIDE FILM, B 3W 68K J
RE09	24366333	CARBON FILM, 1/6W 33K OHM J
RE10	24381820	OXIDE METAL FILM, 1/2W 82 OHM J
RE11	24366102	CARBON FILM, 1/6W 1K OHM J
RE12	24366683	CARBON FILM, 1/6W 68K OHM J
RE18	24366223	CARBON FILM, 1/6W 22K OHM J
RE19	24366103	CARBON FILM, 1/6W 10K OHM J
RE20	24366222	CARBON FILM, 1/6W 2.2K OHM J
RE21	24366102	CARBON FILM, 1/6W 1K OHM J
RE22	24000220	METAL FILM, 1/4W 390 OHM F
RE23	24000366	METAL FILM, 1/4W 2.2K OHM F
RE24	24000150	METAL FILM, 1/4W 680 OHM F
RE25	24366102	CARBON FILM, 1/6W 1K OHM J
RE30	24366101	CARBON FILM, 1/6W 100 OHM J
RE32	24366102	CARBON FILM, 1/6W 1K OHM J
RE33	24000161	METAL FILM, 1/4W 27 F
RE34	24000135	METAL FILM, 1/4W 120 F
RE35	24000220	METAL FILM, 1/4W 390 OHM F
RE40	24000362	METAL FILM, 1/4W 1.5K OHM F
RE41	24366683	CARBON FILM, 1/6W 68K OHM J
RE45	24383561	OXIDE METAL FILM, 2W 560 OHM J
RE50	24366104	CARBON FILM, 1/6W 100K OHM J
RE51	24366474	CARBON FILM, 1/6W 470K OHM J
RE52	24366102	CARBON FILM, 1/6W 1K OHM J
RE53	24366100	CARBON FILM, 1/6W 10 OHM J

Location No.	Parts No.	Description
RE54	24366332	CARBON FILM, 1/6W 3.3K OHM J
RE55	24366103	CARBON FILM, 1/6W 10K OHM J
RE56	24366221	CARBON FILM, 1/6W 220 OHM J
RE61	24382473	OXIDE METAL FILM, 1W 47K OHM J
RG5	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG6	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG30	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG31	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RG32	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RG33	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG34	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RG35	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG36	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RG37	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG38	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
RG39	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RG40	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG41	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG42	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG43	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG44	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG46	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG47	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG48	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG49	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG50	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG51	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RG53	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RG55	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RG56	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RG57	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RG59	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RG60	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RG61	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RG62	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RG63	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RG64	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RG65	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RG66	24872150	CHIP, METAL FILM, 1/16W 15 OHM J
RG67	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RG68	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RG69	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
RG70	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RG71	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
RG74	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
RG75	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RG77	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RG79	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RG80	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RG81	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RG94	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RG96	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RG201	24366101	CARBON FILM, 1/6W 100 OHM J
RG202	24366101	CARBON FILM, 1/6W 100 OHM J
RG203	24366101	CARBON FILM, 1/6W 100 OHM J
RG204	24366101	CARBON FILM, 1/6W 100 OHM J
RG205	24366101	CARBON FILM, 1/6W 100 OHM J
RG206	24366101	CARBON FILM, 1/6W 100 OHM J
RG207	24366471	CARBON FILM, 1/6W 470 OHM J
RG208	24366471	CARBON FILM, 1/6W 470 OHM J
RG209	24366470	CARBON FILM, 1/6W 47 OHM J
RG210	24366104	CARBON FILM, 1/6W 100K OHM J
RG211	24366104	CARBON FILM, 1/6W 100K OHM J
RG216	24366102	CARBON FILM, 1/6W 1K OHM J
RG217	24366102	CARBON FILM, 1/6W 1K OHM J

Location No.	Parts No.	Description
RI01	24011270	CHIP, METAL FILM, 1/20W 27 OHM J
RI02	24011512	CHIP, METAL FILM, 1/20W 5.1K OHM J
RI03	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RI04	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RI05	24011361	CHIP, METAL FILM, 1/20W 360 OHM J
RI06	24011519	METAL FILM CHIP, 1/16W 5.1 J
RI07	24011360	METAL FILM CHIP, 1/20W 36 J
RI08	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RI09	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RI11	24011113	CHIP, METAL FILM, 1/20W 11K OHM J
RI13	24011112	CHIP, METAL FILM, 1/20W 1.1K OHM J
RI14	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RI15	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RI16	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RI17	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RI18	24011132	CHIP, METAL FILM, 1/20W 1.3K OHM J
RI19	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RI20	24011821	CHIP, METAL FILM, 1/20W 820 OHM J
RI21	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RI22	24011475	METAL FILM CHIP, 1/16W 4R7M K
RI23	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RI27	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RI28	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RI30	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RI32	24366750	CARBON FILM, 1/6W 75 OHM J
RI33	24011124	CHIP, METAL FILM, 1/20W 120K OHM J
RI35	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
RI36	24011683	CHIP, METAL FILM, 1/20W 68K OHM J
RI51	24066046	VARIABLE. CARBON, 0.1W 20K N
RI52	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RJ41	24000445	CHIP JUMPER, 1608TYPE
RJ42	24000445	CHIP JUMPER, 1608TYPE
RJ43	24000445	CHIP JUMPER, 1608TYPE
RJ44	24000445	CHIP JUMPER, 1608TYPE
RJ45	24000445	CHIP JUMPER, 1608TYPE
RJ46	24000445	CHIP JUMPER, 1608TYPE
RJ47	24000445	CHIP JUMPER, 1608TYPE
RR52	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR53	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RR54	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR55	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RR56	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR57	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RR61	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RR62	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RR63	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS01	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS02	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS03	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS04	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS05	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS06	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS07	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS08	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS09	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS10	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS12	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS13	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS14	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS15	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS16	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS17	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS18	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS19	24011101	CHIP, METAL FILM, 1/20W 100 OHM J

Location No.	Parts No.	Description
RS20	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS21	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS22	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS23	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS24	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS25	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS26	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS29	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS30	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS31	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS32	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS33	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS34	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS35	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS37	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS38	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS39	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS40	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS41	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS42	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS44	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS45	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS46	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS47	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS48	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS49	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS50	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RS51	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
RS52	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS55	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS56	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS57	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS58	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS59	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS60	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS61	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS62	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS63	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RS64	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS65	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
RS66	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
RS67	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
RS120	24554561	OXIDE METAL FILM, 2W 560 OHM J
RS121	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS122	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS123	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS124	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS125	24000445	CHIP JUMPER, 1608TYPE
RS126	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RV01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV03	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV06	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV07	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV08	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV09	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV12	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV14	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RV15	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV17	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV19	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV20	24366750	CARBON FILM, 1/6W 75 OHM J
RV20	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV21	24366750	CARBON FILM, 1/6W 75 OHM J

Location No.	Parts No.	Description
RV21	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV22	24366750	CARBON FILM, 1/6W 75 OHM J
RV23	24366332	CARBON FILM, 1/6W 3.3K OHM J
RV26	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
RV27	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV29	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV30	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV33	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV34	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV35	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV36	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV37	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV38	24872184	CHIP, METAL FILM, 1/16W 180K OHM J
RV39	24872334	CHIP, METAL FILM, 1/16W 330K OHM J
RV40	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV41	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV60	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV61	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV62	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV66	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV70	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV71	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV72	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV73	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV74	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV75	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV76	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
RV77	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV78	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV79	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
RV80	24366750	CARBON FILM, 1/6W 75 OHM J
RV82	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RV84	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RV85	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV86	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV94	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV95	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV96	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV97	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RV141	24011302	CHIP, METAL FILM, 1/20W 3K OHM J
RV323	24872101	CHIP, METAL FILM, 1/16W 100 OHM J
RV324	24872101	CHIP, METAL FILM, 1/16W 100 OHM J
RV325	24872101	CHIP, METAL FILM, 1/16W 100 OHM J
RV330	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV331	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV332	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV337	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV338	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV346	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV347	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV348	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV351	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RV352	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RV353	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RV354	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RV355	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RV356	24011330	CHIP, METAL FILM, 1/20W 33 OHM J
RY101	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY102	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RY103	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RY104	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RY105	24011821	CHIP, METAL FILM, 1/20W 820 OHM J
RY106	24000445	CHIP JUMPER, 1608TYPE
RY107	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY109	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J

Location No.	Parts No.	Description
RY110	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RY501	24011303	CHIP, METAL FILM, 1/20W 30K OHM J
RY502	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RY503	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RY504	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RY505	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RY507	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RY508	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY509	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RY510	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RY511	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY512	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY513	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RY516	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RY517	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RY518	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RY519	24000445	CHIP JUMPER, 1608TYPE
RY520	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY521	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY523	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RY524	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RY525	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY526	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY527	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY528	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RY529	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RY532	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY533	24000445	CHIP JUMPER, 1608TYPE
RY534	24000445	CHIP JUMPER, 1608TYPE
RY541	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RY542	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RY543	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RY545	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY548	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RY550	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RY551	24011182	CHIP, METAL FILM, 1/20W 1.8K OHM J
RY552	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RY560	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RY561	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RY562	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY573	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RY575	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RY576	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RY585	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RY590	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RY591	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RY592	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
COILS & TRANSFORMERS		
L101	23289845	COIL, PEAKING, TRF4680AT
L103	23289844	COIL, PEAKING, TRF4470AT
L111	23289845	COIL, PEAKING, TRF4680AT
L113	23289842	COIL, PEAKING, TRF4220AT
L115	23103852	COIL, FILTER, TEM2028AH
L121	23238562	COIL, PEAKING, TRF4109AJ
L122	23238562	COIL, PEAKING, TRF4109AJ
L201	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L202	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L203	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L204	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM

Location No.	Parts No.	Description
L205	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L206	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L207	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L208	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L209	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L210	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L211	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L212	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L213	23246190	COIL, CHIP-INDUCTOR-R39MMHJ, COLTRF4R39CG
L214	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L215	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L216	23246190	COIL, CHIP-INDUCTOR-R39MMHJ, COLTRF4R39CG
L217	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L218	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L219	23246190	COIL, CHIP-INDUCTOR-R39MMHJ, COLTRF4R39CG
L220	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L221	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L222	23246191	COIL, CHIP-INDUCTOR-R47MMHJ, COLTRF4R47CG
L302	23248073	COIL, CHOKE, TLN3299D
L303	23248073	COIL, CHOKE, TLN3299D
L304	23103145	FERRITE CHOKE, TEM2011AA
L305	23103248	FERRITR CHOKE, TEM2014AA
L310	23289846	COIL, PEAKING, TRF4101AT
L401	23289560	COIL, PEAKING, TRF4560AF
L402	23248345	COIL, CHOKE EI24 120MMH, TLN3534AH
L403	23103145	FERRITE CHOKE, TEM2011AA
L406	23248191	COIL, CHOKE, TLN3351AD
L407	23103248	FERRITR CHOKE, TEM2014AA
L408	23103248	FERRITR CHOKE, TEM2014AA
L441	23233056	COIL, LINEARITY, TLN2222AG
L462	23231374	DEFLECTION YOKE, TDY707QZ
L463	23231374	DEFLECTION YOKE, TDY707QZ
L464	23231374	DEFLECTION YOKE, TDY707QZ
L472	23102499	MAGNET, CPM29.1VM, MAG-1119
L473	23102499	MAGNET, CPM29.1VM, MAG-1119
L474	23102499	MAGNET, CPM29.1VM, MAG-1119
L501	23289844	COIL, PEAKING, TRF4470AT
L503	23280022	COIL, PEAKING, TRF4101AZ
L701	23237987	COIL, PEAKING, TRF4100AC
L702	23261974	COIL, FERRITE BEAD, HC5-035
L704	23103145	FERRITE CHOKE, TEM2011AA
L705	23103145	FERRITE CHOKE, TEM2011AA
L762	23103145	FERRITE CHOKE, TEM2011AA
L764	23103145	FERRITE CHOKE, TEM2011AA
L765	23103145	FERRITE CHOKE, TEM2011AA
L766	23261974	COIL, FERRITE BEAD, HC5-035
L769	23237987	COIL, PEAKING, TRF4100AC

Location No.	Parts No.	Description
L780	23237987	COIL, PEAKING, TRF4100AC
L781	23103145	FERRITE CHOKE, TEM2011AA
L782	23103145	FERRITE CHOKE, TEM2011AA
L783	23261974	COIL, FERRITE BEAD, HC5-035
L801	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L802	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
L805	23248213	COIL, CHOKE, TLN3481AH
L806	23248213	COIL, CHOKE, TLN3481AH
L830	23280019	COIL, PEAKING, TRF4330AZ
L831	23103941	COIL, CHOKE, TEM2011
L832	23248257	COIL, CHOKE, TLN3503AH
L833	23248247	COIL, CHOKE, TLN3499AH
L850	23103145	FERRITE CHOKE, TEM2011AA
L851	23103145	FERRITE CHOKE, TEM2011AA
L852	23103145	FERRITE CHOKE, TEM2011AA
L861	23103145	FERRITE CHOKE, TEM2011AA
L862	23103145	FERRITE CHOKE, TEM2011AA
L864	23103145	FERRITE CHOKE, TEM2011AA
L880	23103145	FERRITE CHOKE, TEM2011AA
L881	23103145	FERRITE CHOKE, TEM2011AA
L882	23103145	FERRITE CHOKE, TEM2011AA
L883	23103145	FERRITE CHOKE, TEM2011AA
L885	23248073	COIL, CHOKE, TLN3299D
L888	23248247	COIL, CHOKE, TLN3499AH
L889	23248247	COIL, CHOKE, TLN3499AH
L891	23103145	FERRITE CHOKE, TEM2011AA
L892	23103145	FERRITE CHOKE, TEM2011AA
L893	23248247	COIL, CHOKE, TLN3499AH
L894	23248247	COIL, CHOKE, TLN3499AH
L895	23103145	FERRITE CHOKE, TEM2011AA
L896	23103145	FERRITE CHOKE, TEM2011AA
L902	23289159	COIL, PEAKING, TRF41R5AF
L904	23289120	COIL, PEAKING, TRF4120AF
L905	23289689	COIL, PEAKING, TRF46R8AF
L907	23289229	COIL, PEAKING, TRF4229AF
L911	23289100	COIL, PEAKING, TRF4100AF
L913	23289159	COIL, PEAKING, TRF41R5AF
L915	23289689	COIL, PEAKING, TRF46R8AF
L916	23289120	COIL, PEAKING, TRF4120AF
L917	23289229	COIL, PEAKING, TRF4229AF
L923	23289159	COIL, PEAKING, TRF41R5AF
L924	23289120	COIL, PEAKING, TRF4120AF
L925	23289689	COIL, PEAKING, TRF46R8AF
L927	23289229	COIL, PEAKING, TRF4229AF
L961	23289100	COIL, PEAKING, TRF4100AF
L4401	23289220	COIL, PEAKING, TRF4220AF
L4702	23103827	INDUCTOR, BEAD, TEM2120M
L7708	23103145	FERRITE CHOKE, TEM2011AA
L7709	23103145	FERRITE CHOKE, TEM2011AA
L7710	23248320	COIL, CHOKE 15X23H 100MMH 2.5A, TLN3441AH
L7711	23248320	COIL, CHOKE 15X23H 100MMH 2.5A, TLN3441AH
L7712	23248031	COIL, CHOKE, TLN3274D
L7713	23248031	COIL, CHOKE, TLN3274D
LA37	23289836	COIL, PEAKING, TRF42R2AT
LA38	23289836	COIL, PEAKING, TRF42R2AT
LA39	23289836	COIL, PEAKING, TRF42R2AT
LB51	23237987	COIL, PEAKING, TRF4100AC
LC01	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LE01	23103145	FERRITE CHOKE, TEM2011AA
LE02	23103775	COIL, FERRITE CHOKE, TEM2014

Location No.	Parts No.	Description
LE10	23103145	FERRITE CHOKE, TEM2011AA
LE30	23280016	COIL, PEAKING, TRF4100AZ
LE32	23248358	COIL, CHOKE EI22 100MMHK, TLN3540AH
LE33	23248213	COIL, CHOKE, TLN3481AH
LE34	23248213	COIL, CHOKE, TLN3481AH
LE35	23280016	COIL, PEAKING, TRF4100AZ
LE40	23280016	COIL, PEAKING, TRF4100AZ
LE50	23280019	COIL, PEAKING, TRF4330AZ
LE52	23248358	COIL, CHOKE EI22 100MMHK, TLN3540AH
LE53	23248213	COIL, CHOKE, TLN3481AH
LE54	23248213	COIL, CHOKE, TLN3481AH
LE71	23103145	FERRITE CHOKE, TEM2011AA
LE72	23248247	COIL, CHOKE, TLN3499AH
LE81	23103145	FERRITE CHOKE, TEM2011AA
LE82	23280018	COIL, PEAKING, TRF4220AZ
LE91	23103145	FERRITE CHOKE, TEM2011AA
LE92	23280018	COIL, PEAKING, TRF4220AZ
LG1	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG2	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG3	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG4	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG5	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG6	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG7	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG8	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG11	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG12	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG13	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG14	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG15	23103823	COIL, FILTER, TEM2027D
LG16	23103823	COIL, FILTER, TEM2027D
LG17	23103823	COIL, FILTER, TEM2027D
LG18	23103823	COIL, FILTER, TEM2027D
LG19	23103823	COIL, FILTER, TEM2027D
LG20	23103152	FILTER, CHIP BEAD 1.5A 600OHM BLM31PG601SN1, TEM2133AM
LG211	23289100	COIL, PEAKING, TRF4100AF
LG212	23289100	COIL, PEAKING, TRF4100AF
LI01	23246051	COIL, CHIP-INDUCTOR-0.22MMH K, COLTRF4R22CE
LI02	23246196	COIL, CHIP INDUCTOR, TRF41R2CG
LI51	23289470	COIL, PEAKING, TRF4470AF
LI52	23289120	COIL, PEAKING, TRF4120AF
LI53	23289180	COIL, PEAKING, TRF4180AF
LI54	23232050	COIL, VARIABLE, TRF3554D
LI55	23289129	COIL, PEAKING 1.0MMH J 0405, TRF41R2AF
LI56	23289180	COIL, PEAKING, TRF4180AF
LI57	23289228	COIL, PEAKING, TRF4R22AF
LV01	23103159	FILTER, EMI, TEM2028AA, 7.5X6.4X8 60MMH 0.5A
LV02	23103159	FILTER, EMI, TEM2028AA, 7.5X6.4X8 60MMH 0.5A

Location No.	Parts No.	Description
LV03	23103159	FILTER, EMI, TEM2028AA, 7.5X6.4X8 60MMH 0.5A
LV09	23289840	COIL, PEAKING, TRF4100AT
LV13	23289840	COIL, PEAKING, TRF4100AT
LV20	23238705	COIL, PEAKING, TRF4560AJ
LV42	23289840	COIL, PEAKING, TRF4100AT
LV72	23103159	FILTER, EMI, TEM2028AA, 7.5X6.4X8 60MMH 0.5A
LV251	23103852	COIL, FILTER, TEM2028AH
LV252	23103852	COIL, FILTER, TEM2028AH
LV253	23103852	COIL, FILTER, TEM2028AH
LV270	23289840	COIL, PEAKING, TRF4100AT
LV271	23103146	EMI FILTER, TEM2030AA
LY012	23246398	COIL, CHIP INDUCTOR 10MMH K, COLTRF4100CV
LY100	23246405	COIL, CHIP INDUCTOR 33MMH J, COLTRF4330CW
LY101	23103827	INDUCTOR, BEAD, TEM2120M
LY102	23103827	INDUCTOR, BEAD, TEM2120M
LY103	23103230	INDUCTOR, BEAD, TEM2134AD
LY104	23246404	COIL, CHIP INDUCTOR 15MMH J, COLTRF4150CW
LY105	23246222	COIL, CHIP INDUCTOR, TRF4270CG
LY112	23103230	INDUCTOR, BEAD, TEM2134AD
LY501	23246398	COIL, CHIP INDUCTOR 10MMH K, COLTRF4100CV
T400	23224386	TRANSFORMER, FOCUS, TLN2220AH
T401	23224371	TRANSFORMER, HORIZ DRIVE, TLN1080AH
T461A	23192972	ANODE CAP ASSY, TCC5609AT
T801	23211763	COIL, LINE FILTER 35X32H, TRF3241AQ
T802	23211765	COIL, LF LH35V, TRF3239AH
T862	23217598	TRANSFORMER, CONVERTER, TPW3516AS
TE01	23217586	TRANSFORMER, CONVERTER, TPW3512AS
SEMICONDUCTORS		
Q172	23314993	TRANSISTOR, 2SC4081 Q
Q201	23009234	IC, TI TFP501, TFP501
Q201	23314993	TRANSISTOR, 2SC4081 Q
Q202	23009233	IC, TI THS8200, THS8200
Q203	23009394	IC, TMP87P809M
Q204	23009371	IC, IC, EPM3032A, EPM3032ATC4410
Q205	23205151	TRANSISTOR, FET, BSN20
Q206	23205151	TRANSISTOR, FET, BSN20
Q207	23314163	TRANSISTOR, 2SA1162-Y
Q208	23314163	TRANSISTOR, 2SA1162-Y
Q209	23314163	TRANSISTOR, 2SA1162-Y
Q210	23314204	TRANSISTOR, 2SC2412K,Q
Q210	23205057	TRANSISTOR, KTC3875Y
Q211	23205151	TRANSISTOR, FET, BSN20
Q211	23205057	TRANSISTOR, KTC3875Y
Q212	70114402	TRANSISTOR, 2SC3437-Y
Q213	23314204	TRANSISTOR, 2SC2412K,Q
Q241	23114756	TRANSISTOR, 2SC2482
Q301	23319787	IC, LA7833S
Q301B	70391356	SCREW, BITTB3X10 SZN
Q302	23000711	IC, TA1317AN
Q305	23314994	TRANSISTOR, 2SA1576A106
Q306	70119059	IC, OP AMP, TA75902P(J)
Q370	23314993	TRANSISTOR, 2SC4081 Q
Q371	23314994	TRANSISTOR, 2SA1576A106
Q372	23314993	TRANSISTOR, 2SC4081 Q
Q400	23205079	TRANSISTOR, 2SC4686A
Q402	23205166	TRANSISTOR, FET, 2SK2962
Q404	23205149	TRANSISTOR, 2SC5859(FA)
Q404B	72471082	SCREW, 3X10MM

Location No.	Parts No.	Description
Q404D	23850638	INSULATOR, TRANSISTOR, AC263(NO SERVICE PART)
Q405	23314962	TRANSISTOR, KTA1266 Y
Q406	23314965	TRANSISTOR, KTC3198 Y
Q408	23314962	TRANSISTOR, KTA1266 Y
Q409	23314965	TRANSISTOR, KTC3198 Y
Q410	23314993	TRANSISTOR, 2SC4081 Q
Q411	23314993	TRANSISTOR, 2SC4081 Q
Q420	23114756	TRANSISTOR, 2SC2482
Q425	23205031	TRANSISTOR, FET, 2SK2920
Q428	23314965	TRANSISTOR, KTC3198 Y
Q470	23314359	TRANSISTOR, 2SA1321(FA, C)
Q471	23314965	TRANSISTOR, KTC3198 Y
Q472	23314965	TRANSISTOR, KTC3198 Y
Q473	23314962	TRANSISTOR, KTA1266 Y
Q510	23009369	IC, TA1360AFG
Q520	23205054	TRANSISTOR, KTA1504Y
Q521	23205054	TRANSISTOR, KTA1504Y
Q522	23205054	TRANSISTOR, KTA1504Y
Q523	23314993	TRANSISTOR, 2SC4081 Q
Q524	23114497	TRANSISTOR, RN1406
Q525	23114497	TRANSISTOR, RN1406
Q526	23114497	TRANSISTOR, RN1406
Q527	23205054	TRANSISTOR, KTA1504Y
Q528	23205054	TRANSISTOR, KTA1504Y
Q529	23205054	TRANSISTOR, KTA1504Y
Q530	23314994	TRANSISTOR, 2SA1576A106
Q601	23009485	IC, TA8258H(GR)
Q601B	70391356	SCREW, BITTB3X10 SZN
Q612	23314994	TRANSISTOR, 2SA1576A106
Q661	70114396	TRANSISTOR, 2SC3326B
Q662	70114396	TRANSISTOR, 2SC3326B
Q663	23906596	IC, BA4558
Q664	23114493	TRANSISTOR, RN2404
Q681	70114396	TRANSISTOR, 2SC3326B
Q682	70114396	TRANSISTOR, 2SC3326B
Q683	23314993	TRANSISTOR, 2SC4081 Q
Q706	23114528	TRANSISTOR, 2SC1740S
Q707	23114437	TRANSISTOR, 2SC752GTM-Y
Q709	23114528	TRANSISTOR, 2SC1740S
Q710	23205123	TRANSISTOR, 2SA933ASQ
Q711	23314909	TRANSISTOR, 2SA1837
Q711B	23712306	SCREW, PP3X.5X6SZN
Q712	23314912	TRANSISTOR, 2SC4793
Q712B	23712306	SCREW, PP3X.5X6SZN
Q719	23114528	TRANSISTOR, 2SC1740S
Q720	23114528	TRANSISTOR, 2SC1740S
Q721	23114735	TRANSISTOR, 2SA102-Y(C)
Q722	23114733	TRANSISTOR, 2SC2655-Y
Q751	23135040	IC, CONVERGENCE OUT, STK394-250
Q752	23135040	IC, CONVERGENCE OUT, STK394-250
Q760	23205123	TRANSISTOR, 2SA933ASQ
Q761	23314909	TRANSISTOR, 2SA1837
Q761B	23712306	SCREW, PP3X.5X6SZN
Q769	23114528	TRANSISTOR, 2SC1740S
Q771	23314994	TRANSISTOR, 2SA1576A106
Q771	23314912	TRANSISTOR, 2SC4793
Q771B	23712306	SCREW, PP3X.5X6SZN
Q772	23319666	IC, TC74HC123AP(NEW)
Q776	23314965	TRANSISTOR, KTC3198 Y
Q777	23314962	TRANSISTOR, KTA1266 Y
Q778	23314965	TRANSISTOR, KTC3198 Y
Q779	23114528	TRANSISTOR, 2SC1740S
Q779	23314965	TRANSISTOR, KTC3198 Y
Q780	23314962	TRANSISTOR, KTA1266 Y

Location No.	Parts No.	Description
Q781	23114528	TRANSISTOR, 2SC1740S
Q781	23314965	TRANSISTOR, KTC3198 Y
Q782	23319894	IC, NJM79M05FA
Q782	23205123	TRANSISTOR, 2SA933ASQ
Q783	23114528	TRANSISTOR, 2SC1740S
Q783	23205037	TRANSISTOR, 2SJ512
Q783B	70391356	SCREW, BITTB3X10 SZN
Q784	23904268	IC, PQ05RR1
Q784	23314909	TRANSISTOR, 2SA1837
Q784B	23712306	SCREW, PP3X.5X6SZN
Q784B	70391356	SCREW, BITTB3X10 SZN
Q785	23314912	TRANSISTOR, 2SC4793
Q785B	23712306	SCREW, PP3X.5X6SZN
Q788	23314993	TRANSISTOR, 2SC4081 Q
Q792	23319666	IC, TC74HC123AP(NEW)
Q793	23205031	TRANSISTOR, FET, 2SK2920
Q796	23314993	TRANSISTOR, 2SC4081 Q
Q798	23314993	TRANSISTOR, 2SC4081 Q
Q801	23135028	IC, STR-Z4479
Q801	23009236	IC, TI TPS76918, TPS76918
Q830	23000804	IC, SI-3090J(LF1101)
Q830B	70391356	SCREW, BITTB3X10 SZN
Q831	23319941	IC, SI-3050C
Q831B	70391356	SCREW, BITTB3X10 SZN
Q832	23000806	IC, SI-8033SS
Q832B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q833	23905976	IC, PQ05RD11
Q833B	70391356	SCREW, BITTB3X10 SZN
Q841	23009270	IC, PHOTO COUPLER, PS2581L1(D)
Q843	23314965	TRANSISTOR, KTC3198 Y
Q844	23314965	TRANSISTOR, KTC3198 Y
Q862	23009270	IC, PHOTO COUPLER, PS2581L1(D)
Q881	23319693	IC, SE116N, LF4
Q894	23314965	TRANSISTOR, KTC3198 Y
Q901	23205159	TRANSISTOR, 2SC3942
Q902	23205165	TRANSISTOR, 2SC3950E
Q904	23205158	TRANSISTOR, 2SC3790E
Q905	23205156	TRANSISTOR, 2SA1480E
Q911	23205159	TRANSISTOR, 2SC3942
Q912	23205165	TRANSISTOR, 2SC3950E
Q913	23314962	TRANSISTOR, KTA1266 Y
Q914	23205158	TRANSISTOR, 2SC3790E
Q915	23205156	TRANSISTOR, 2SA1480E
Q921	23205159	TRANSISTOR, 2SC3942
Q922	23205165	TRANSISTOR, 2SC3950E
Q924	23205158	TRANSISTOR, 2SC3790E
Q925	23205156	TRANSISTOR, 2SA1480E
Q961	23314965	TRANSISTOR, KTC3198 Y
Q962	23314962	TRANSISTOR, KTA1266 Y
Q973	23314962	TRANSISTOR, KTA1266 Y
Q2104	23205123	TRANSISTOR, 2SA933ASQ
Q2105	23205123	TRANSISTOR, 2SA933ASQ
Q2106	23205123	TRANSISTOR, 2SA933ASQ
Q2107	23205123	TRANSISTOR, 2SA933ASQ
Q2108	23205123	TRANSISTOR, 2SA933ASQ
Q2109	23205123	TRANSISTOR, 2SA933ASQ
Q4430	23314164	TRANSISTOR, 2SC2236-Y(C))
Q4701	23906335	IC, TA1270AF(J)
Q4702	23314289	TRANSISTOR, 2SA1586-Y
Q4703	23314289	TRANSISTOR, 2SA1586-Y
QA01	23009533	IC, MCU 1CHIP 16BIT 4M 64P, MN102H85KFM
QA02	23009330	IC, AT24C64-10PI-2.7
QA70	23319935	IC, MM1096BS
QA71	23314993	TRANSISTOR, 2SC4081 Q

Location No.	Parts No.	Description
QA72	23314993	TRANSISTOR, 2SC4081 Q
QA80	23906295	IC, UPC29M33HB
QA81	70200563	IC, RESET VS=2.9V, PST9129
QB01	23114528	TRANSISTOR, 2SC1740S
QB03	23114498	TRANSISTOR, RN1405
QB05	23314993	TRANSISTOR, 2SC4081 Q
QB14	23314993	TRANSISTOR, 2SC4081 Q
QB15	23314993	TRANSISTOR, 2SC4081 Q
QB44	23205112	TRANSISTOR, 2SA1980UF-Y(
QB45	23205116	TRANSISTOR, 2SC5343UF-Y(B
QB46	23205112	TRANSISTOR, 2SA1980UF-Y(
QB47	23205116	TRANSISTOR, 2SC5343UF-Y(B
QB51	23319808	IC, M5218AP
QB51	23205054	TRANSISTOR, KTA1504Y
QB52	23314965	TRANSISTOR, KTC3198 Y
QB53	23314962	TRANSISTOR, KTA1266 Y
QB55	23314993	TRANSISTOR, 2SC4081 Q
QB61	70114402	TRANSISTOR, 2SC3437-Y
QB81	70114396	TRANSISTOR, 2SC3326B
QB82	70114396	TRANSISTOR, 2SC3326B
QB83	23314994	TRANSISTOR, 2SA1576A106
QB84	23314993	TRANSISTOR, 2SC4081 Q
QB85	23314994	TRANSISTOR, 2SA1576A106
QB86	23314994	TRANSISTOR, 2SA1576A106
QB87	23314994	TRANSISTOR, 2SA1576A106
QB88	23314994	TRANSISTOR, 2SA1576A106
QB501	23009558	IC, BLASTER IC, S3C80F7
QB502	23114422	TRANSISTOR, 2SA562TM-Y
QB504	23314993	TRANSISTOR, 2SC4081 Q
QB505	23314993	TRANSISTOR, 2SC4081 Q
QB506	23904123	IC, TC4W53F
QB507	23314993	TRANSISTOR, 2SC4081 Q
QB508	23114422	TRANSISTOR, 2SA562TM-Y
QC01	23009360	IC, 4K BIT CMOS EEPROM 24C04N-10SI-1.8TEL, AT24C04N10SI
QC02	23205151	TRANSISTOR, FET, BSN20
QC03	23205151	TRANSISTOR, FET, BSN20
QC04	23009360	IC, 4K BIT CMOS EEPROM 24C04N-10SI-1.8TEL, AT24C04N10SI
QC05	23314204	TRANSISTOR, 2SC2412K,Q
QE01	23135036	IC, STRW6853
QE02	23009270	IC, PHOTO COUPLER, PS2581L1(D)
QE19	23314965	TRANSISTOR, KTC3198 Y
QE20	23000701	IC, NJM431L
QE30	23000806	IC, SI-8033SS
QE31	23000469	IC, PQ5EV3
QE40	23319202	IC, MC7809CT
QE40B	70391356	SCREW, BITTB3X10 SZN
QE41	23319941	IC, SI-3050C
QE43	23314839	TRANSISTOR, 2SC2240-GR
QE50	23009271	IC, SWITCHING REG., NJM2367
QG1	23009523	IC, F741503A
QG2	23009524	IC, AD55/136-0
QG6	23009671	IC, PIC12F629
QG7	23009528	IC, 1.8V REG BA18BC0FP-E2
QG8	23906770	IC, BA033FP
QG11	23009526	IC, FLASH32MBIT DS42667, AM29LV320MB-120EI
QG12	23009525	IC, SDRAM 64MBIT IS42S16400, IS42S16400-7T-TR
QG13	23009525	IC, SDRAM 64MBIT IS42S16400, IS42S16400-7T-TR
QG15	23314834	TRANSISTOR, MMBT3906LT1
QG16	23314833	TRANSISTOR, MMBT3904LT1
QG17	23009591	IC, LVDS TRANSMITTER, THC63LVDM83R

Location No.	Parts No.	Description
QG201	23000529	IC, SW 2IN 1OUT 3CIRCUIT 0 CLP MM1231XD
QG202	23009532	IC, ANALOG SWITCH, BA7612N
QH301	23358557	OPT DEVICE, AM. PHOTOSENSOR, AM-30-24CA
QH301	23358557	OPT DEVICE, AM. PHOTOSENSOR, AM-30-24CA
QH301	23358557	OPT DEVICE, AM. PHOTOSENSOR, AM-30-24CA
QH301	23358557	OPT DEVICE, AM. PHOTOSENSOR, AM-30-24CA
QI01	23114611	TRANSISTOR, 2SC3357
QI02	23314994	TRANSISTOR, 2SA1576A106
QI03	23314993	TRANSISTOR, 2SC4081 Q
QI05	23009240	IC, VIF/SIF SSOP24PIN, TA1274F(FA03A5,EL)
QR14	23314994	TRANSISTOR, 2SA1576A106
QR15	23314994	TRANSISTOR, 2SA1576A106
QR16	23314994	TRANSISTOR, 2SA1576A106
QS03	23314993	TRANSISTOR, 2SC4081 Q
QS04	23314993	TRANSISTOR, 2SC4081 Q
QS05	23318977	IC, MC14052BF
QS06	23318977	IC, MC14052BF
QS07	70114396	TRANSISTOR, 2SC3326B
QS08	70114396	TRANSISTOR, 2SC3326B
QS09	23114493	TRANSISTOR, RN2404
QS10	23904896	IC, JLC1562BF
QS11	23114499	TRANSISTOR, RN1404
QS12	23114499	TRANSISTOR, RN1404
QS13	23114499	TRANSISTOR, RN1404
QS14	23114499	TRANSISTOR, RN1404
QS120	23906596	IC, BA4558
QV01	23906887	IC, CXA2069Q
QV04	23314993	TRANSISTOR, 2SC4081 Q
QV06	23314994	TRANSISTOR, 2SA1576A106
QV09	23314994	TRANSISTOR, 2SA1576A106
QV12	23009418	IC, 2IN-1OUTSW DRIVER, MM1505XNRE
QV13	23314993	TRANSISTOR, 2SC4081 Q
QV14	23314993	TRANSISTOR, 2SC4081 Q
QV20	23114499	TRANSISTOR, RN1404
QV70	23314993	TRANSISTOR, 2SC4081 Q
QV71	23314993	TRANSISTOR, 2SC4081 Q
QV72	23314994	TRANSISTOR, 2SA1576A106
QV73	23314994	TRANSISTOR, 2SA1576A106
QV254	23000360	IC, MM1519XQ
QY100	23906515	IC, TC90A45F
QY101	23314993	TRANSISTOR, 2SC4081 Q
QY102	23314993	TRANSISTOR, 2SC4081 Q
QY103	23314994	TRANSISTOR, 2SA1576A106
QY501	23000812	IC, TA1340F
QY502	23205014	TRANSISTOR, 2SC4667-O
QY503	23314994	TRANSISTOR, 2SA1576A106
QY504	23314994	TRANSISTOR, 2SA1576A106
QY507	23314993	TRANSISTOR, 2SC4081 Q
QY511	23314994	TRANSISTOR, 2SA1576A106
QY512	23314994	TRANSISTOR, 2SA1576A106
QY513	23314994	TRANSISTOR, 2SA1576A106
QY514	23314994	TRANSISTOR, 2SA1576A106
QY515	23314994	TRANSISTOR, 2SA1576A106
QY516	23314994	TRANSISTOR, 2SA1576A106
QY518	23314993	TRANSISTOR, 2SC4081 Q
QY520	23314993	TRANSISTOR, 2SC4081 Q
D201	23118041	DIODE, MA111
D202	23118041	DIODE, MA111
D203	23118041	DIODE, MA111
D204	23118041	DIODE, MA111
D205	23316573	DIODE, ZENER, MA8062-L

Location No.	Parts No.	Description
D206	23316573	DIODE, ZENER, MA8062-L
D230	23118041	DIODE, MA111
D301	23316682	DIODE, ZENER, MTZJ7.5C
D302	23357366	DIODE, FR105-B5
D304	23316794	DIODE, SC570A
D305	23118822	DIODE, ERB12-02
D306	23118822	DIODE, ERB12-02
D327	23316715	DIODE, ZENER, MTZJ11A
D336	23316672	DIODE, ZENER, MTZJ5.6B
D337	23316672	DIODE, ZENER, MTZJ5.6B
D365	23316682	DIODE, ZENER, MTZJ7.5C
D370	23118859	DIODE, 1SS133
D401	23118056	DIODE, AG01
D402	23357366	DIODE, FR105-B5
D404	23316254	DIODE, ERC06-15
D406	23115910	DIODE, S5295G
D411	23316731	DIODE, ZENER, MTZJ18B
D412	23118707	DIODE, RP-1H
D413	23118707	DIODE, RP-1H
D414	23357366	DIODE, FR105-B5
D415	23357366	DIODE, FR105-B5
D418	23316755	DIODE, ZENER, MTZJ33C
D419	23316231	DIODE, 1SS355
D420	23118859	DIODE, 1SS133
D421	23357366	DIODE, FR105-B5
D425	23357366	DIODE, FR105-B5
D426	23316731	DIODE, ZENER, MTZJ18B
D450	23357366	DIODE, FR105-B5
D461	23224366	DIODE, FMQ-3GU
D461B	70391356	SCREW, BITTB3X10 SZN
D470	23316719	DIODE, ZENER, MTZJ12B
D490	23316675	DIODE, ZENER, MTZJ6.2B
D491	23118859	DIODE, 1SS133
D492	23316690	DIODE, ZENER, MTZJ10B
D502	23118041	DIODE, MA111
D505	23118094	DIODE, EU2A
D520	23118641	DIODE, ZENER, RD2.0ESA B2
D522	23118041	DIODE, MA111
D523	23118041	DIODE, MA111
D531	23316584	DIODE, ZENER CHIP VZ7.77-8.17V, MA8082-L
D532	23357365	DIODE, 1N4004A-B5
D533	23316591	DIODE, ZENER, MA8100-M
D534	23316792	DIODE, SC215
D535	23316591	DIODE, ZENER, MA8100-M
D536	23316231	DIODE, 1SS355
D601	23118041	DIODE, MA111
D602	23118041	DIODE, MA111
D603	23118041	DIODE, MA111
D604	23118041	DIODE, MA111
D607	23316622	DIODE, ZENER, MA8270-M
D608	23316622	DIODE, ZENER, MA8270-M
D611	23118041	DIODE, MA111
D612	23118041	DIODE, MA111
D613	23118041	DIODE, MA111
D614	23118041	DIODE, MA111
D615	23118041	DIODE, MA111
D616	23118041	DIODE, MA111
D617	23118041	DIODE, MA111
D704	23118859	DIODE, 1SS133
D705	23118859	DIODE, 1SS133
D715	23118859	DIODE, 1SS133
D721	23118859	DIODE, 1SS133
D721	23316722	DIODE, ZENER, MTZJ13B
D722	23316722	DIODE, ZENER, MTZJ13B
D761	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
D762	23118859	DIODE, 1SS133
D763	23118859	DIODE, 1SS133
D764	23118859	DIODE, 1SS133
D781	23118859	DIODE, 1SS133
D782	23118859	DIODE, 1SS133
D783	23118859	DIODE, 1SS133
D784	23118859	DIODE, 1SS133
D801	23316784	DIODE, RBV1506, LF-A
D830	23118213	DIODE, RK44,
D831	23316663	DIODE, ZENER, MTZJ4.3B
D832	23118859	DIODE, 1SS133
D834	23316269	DIODE, AK04
D835	23118096	DIODE, RK34
D844	23316672	DIODE, ZENER, MTZJ5.6B
D845	23118859	DIODE, 1SS133
D848	23118859	DIODE, 1SS133
D851	23357216	DIODE, D4SBL20U
D852	23316714	DIODE, RL2Z
D853	23316714	DIODE, RL2Z
D862	23357366	DIODE, FR105-B5
D864	23357366	DIODE, FR105-B5
D873	23316747	DIODE, ZENER, MTZJ27C
D875	23316688	DIODE, ZENER, MTZJ9.1C
D876	23316759	DIODE, ZENER, MTZJ36C
D878	23316686	DIODE, ZENER, MTZJ9.1A
D879	23316747	DIODE, ZENER, MTZJ27C
D880	23316661	DIODE, ZENER, MTZJ3.9B
D881	23118859	DIODE, 1SS133
D882	23357012	DIODE, 1SS244
D883	23118859	DIODE, 1SS133
D884	23357217	DIODE, D4SBL40
D884B	70391334	SCREW, BTTB 3X8 SZN
D885	23357216	DIODE, D4SBL20U
D891	23316184	DIODE, FML-G12S
D891B	70391334	SCREW, BTTB 3X8 SZN
D892	23316184	DIODE, FML-G12S
D892B	70391334	SCREW, BTTB 3X8 SZN
D893	23316782	DIODE, ZENER, MTZJ6.2C
D894	23118859	DIODE, 1SS133
D899	24019485	VARISTOR, TNR10V431K
D901	23118859	DIODE, 1SS133
D906	23357012	DIODE, 1SS244
D907	23357012	DIODE, 1SS244
D908	23357012	DIODE, 1SS244
D909	23357012	DIODE, 1SS244
D912	23118859	DIODE, 1SS133
D913	23115337	DIODE, 1S1834
D916	23357012	DIODE, 1SS244
D917	23357012	DIODE, 1SS244
D918	23357012	DIODE, 1SS244
D919	23357012	DIODE, 1SS244
D921	23118859	DIODE, 1SS133
D926	23357012	DIODE, 1SS244
D927	23357012	DIODE, 1SS244
D928	23357012	DIODE, 1SS244
D929	23357012	DIODE, 1SS244
D936	23115337	DIODE, 1S1834
D940	23118859	DIODE, 1SS133
D941	23118859	DIODE, 1SS133
D942	23118859	DIODE, 1SS133
D943	23118859	DIODE, 1SS133
D944	23118859	DIODE, 1SS133
D945	23118859	DIODE, 1SS133
D967	23115337	DIODE, 1S1834
DA02	23316574	DIODE, ZENER CHIP VZ6.05-6.36V, MA8062-M

Location No.	Parts No.	Description
DA23	23118041	DIODE, MA111
DA43	23118041	DIODE, MA111
DA44	23118041	DIODE, MA111
DA45	23118041	DIODE, MA111
DA46	23118041	DIODE, MA111
DA70	23118041	DIODE, MA111
D4401	23316591	DIODE, ZENER, MA8100-M
D4430	23357365	DIODE, 1N4004A-B5
D4431	23316715	DIODE, ZENER, MTZJ11A
D4604	23316231	DIODE, 1SS355
D4605	23316591	DIODE, ZENER, MA8100-M
D4606	23316231	DIODE, 1SS355
D7703	23115532	DIODE, ERB12-01
D7705	23118041	DIODE, MA111
D7706	23118041	DIODE, MA111
D7707	23118041	DIODE, MA111
D7708	23118041	DIODE, MA111
D7717	23118538	DIODE, ZENER, RD6.2ESA B2
D7718	23118538	DIODE, ZENER, RD6.2ESA B2
D7729	23316738	DIODE, ZENER, MTZJ22B
D7730	23118538	DIODE, ZENER, RD6.2ESA B2
D7731	23118538	DIODE, ZENER, RD6.2ESA B2
D7732	23115532	DIODE, ERB12-01
D7733	23118499	DIODE, ZENER, RD18ESA B2
D7734	23118499	DIODE, ZENER, RD18ESA B2
D7735	23115532	DIODE, ERB12-01
D7806	23118041	DIODE, MA111
D7808	23316714	DIODE, RL2Z
D7809	23118041	DIODE, MA111
D7810	23316402	DIODE, RL4Z
D7811	23118041	DIODE, MA111
DB01	23358564	DIODE, LED, SLR-56VC3FPQ
DB03	23358522	DIODE, LED, SIR-56SB3F
DB30	23118041	DIODE, MA111
DB31	23118041	DIODE, MA111
DB51	23358573	PHOTO DIODE, PIN 940NM, HPI-2FER4
DB52	23118859	DIODE, 1SS133
DB54	23118859	DIODE, 1SS133
DB55	23118859	DIODE, 1SS133
DB56	23118859	DIODE, 1SS133
DB61	23118041	DIODE, MA111
DB501	23118041	DIODE, MA111
DB504	23118041	DIODE, MA111
DC01	23118041	DIODE, MA111
DC02	23118041	DIODE, MA111
DC03	23118041	DIODE, MA111
DC04	23118041	DIODE, MA111
DE01	23316391	DIODE, D3SB60(4103)
DE03	23316672	DIODE, ZENER, MTZJ5.6B
DE04	23316381	DIODE, RU1P
DE05	23316754	DIODE, ZENER, MTZJ33B
DE10	23357366	DIODE, FR105-B5
DE11	23118859	DIODE, 1SS133
DE12	23118859	DIODE, 1SS133
DE30	23316637	DIODE, SCHOTTKY, FMB-G14L
DE31	23316663	DIODE, ZENER, MTZJ4.3B
DE32	23118859	DIODE, 1SS133
DE33	23316819	DIODE, RU4YX
DE40	23316757	DIODE, ZENER, MTZJ36A
DE50	23118859	DIODE, 1SS133
DE51	23316637	DIODE, SCHOTTKY, FMB-G14L
DE52	23118859	DIODE, 1SS133
DE53	23118933	THYRISTOR, SF5J42(N)
DE55	23316675	DIODE, ZENER, MTZJ6.2B
DE56	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
DE57	23316819	DIODE, RU4YX
DE58	23316766	DIODE, RU2YX
DE59	70115542	DIODE, EK16
DE61	23357366	DIODE, FR105-B5
DE71	23316184	DIODE, FML-G12S
DE71B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
DE81	23316714	DIODE, RL2Z
DE91	23316714	DIODE, RL2Z
DG1	23118041	DIODE, MA111
DG2	23316577	DIODE, ZENER, MA8068-M
DG3	23316577	DIODE, ZENER, MA8068-M
DG4	23118041	DIODE, MA111
DH301	23316672	DIODE, ZENER, MTZJ5.6B
DH301	23316672	DIODE, ZENER, MTZJ5.6B
DH301	23316672	DIODE, ZENER, MTZJ5.6B
DH301	23316672	DIODE, ZENER, MTZJ5.6B
DS120	23316740	DIODE, ZENER, MTZ J 22D
DV07	23316577	DIODE, ZENER, MA8068-M
DV14	23316577	DIODE, ZENER, MA8068-M
DV21	23316577	DIODE, ZENER, MA8068-M
DV25	23118041	DIODE, MA111
DV30	23316792	DIODE, SC215
DV31	23316672	DIODE, ZENER, MTZJ5.6B
DV39	23358543	IC, PHOTO SENSOR, S7565
DV241	23316587	DIODE, ZENER, MA8091-L
DV242	23316587	DIODE, ZENER, MA8091-L
DV243	23316587	DIODE, ZENER, MA8091-L
DV244	23316587	DIODE, ZENER, MA8091-L
DV249	23316587	DIODE, ZENER, MA8091-L
DV250	23316587	DIODE, ZENER, MA8091-L
DV251	23316577	DIODE, ZENER, MA8068-M
DV252	23316577	DIODE, ZENER, MA8068-M
DV256	23316587	DIODE, ZENER, MA8091-L
DV257	23316587	DIODE, ZENER, MA8091-L
DV258	23316587	DIODE, ZENER, MA8091-L
MISCELLANEOUS		
B224	23035412	SCREW, BTB4X12 SZN
B231	23037312	SCREW, BTBW3X12SZN
B232	23035310	SCREW, BTB3X10SZN
BB10	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB20	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
E918	23737007	BOLT, BOLT ASSY 50A60
E929	23969684	TAPE, GLASS-CLOTH, W/ADHESIVE W=90 T=0.18
E948	23737007	BOLT, BOLT ASSY 50A60
E959	23969684	TAPE, GLASS-CLOTH, W/ADHESIVE W=90 T=0.18
E978	23737007	BOLT, BOLT ASSY 50A60
E989	23969684	TAPE, GLASS-CLOTH, W/ADHESIVE W=90 T=0.18
F470	23144624	FUSE, AXIAL, 125V 2.0A
F801	23144481	FUSE, 125V 7.0A-T U/C MINI
F801A	23165433	FUSE HOLDER, 5.2 SOC
F801B	23165433	FUSE HOLDER, 5.2 SOC
F850	23144510	FUSE, AXIAL, 125V 3.5A
F851	23144456	FUSE, AXIAL, 125V 5.0A
F852	23144456	FUSE, AXIAL, 125V 5.0A
F860	23144626	FUSE, AXIAL, 125V 4.0A
F885	23144511	FUSE, AXIAL, 125V 4.0A
F891	23144456	FUSE, AXIAL, 125V 5.0A
F892	23144456	FUSE, AXIAL, 125V 5.0A
F7711	23144509	FUSE, AXIAL, 125V 2.5A
F7716	23144509	FUSE, AXIAL, 125V 2.5A

Location No.	Parts No.	Description
F7721	23144509	FUSE, AXIAL, 125V 2.5A
F7726	23144509	FUSE, AXIAL, 125V 2.5A
F7731	23144509	FUSE, AXIAL, 125V 2.5A
F7736	23144509	FUSE, AXIAL, 125V 2.5A
FE01	23144454	FUSE, AXIAL, 125V 2.0A
FE40	23144509	FUSE, AXIAL, 125V 2.5A
FE61	23144515	FUSE, AXIAL, 125V 1.0A
FE71	23144511	FUSE, AXIAL, 125V 4.0A
FE81	23144454	FUSE, AXIAL, 125V 2.0A
FE91	23144455	FUSE, AXIAL, 125V 3.0A
G101	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
G102	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
G904	23118859	DIODE, 1SS133
G905	23118859	DIODE, 1SS133
G914	23118859	DIODE, 1SS133
G915	23118859	DIODE, 1SS133
G924	23118859	DIODE, 1SS133
G925	23118859	DIODE, 1SS133
G934	24366560	CARBON FILM, 1/6W 56 OHM J
G944	24366560	CARBON FILM, 1/6W 56 OHM J
G954	24366560	CARBON FILM, 1/6W 56 OHM J
GJ1	24000445	CHIP JUMPER, 1608TYPE
GJ2	24000445	CHIP JUMPER, 1608TYPE
GJ3	24000445	CHIP JUMPER, 1608TYPE
GJ4	24000445	CHIP JUMPER, 1608TYPE
GJ8	24000445	CHIP JUMPER, 1608TYPE
GJ07	24000824	CHIP JUMPER, 2125TYPE
GJ10	24000824	CHIP JUMPER, 2125TYPE
GJ13	24000445	CHIP JUMPER, 1608TYPE
GJ14	24000445	CHIP JUMPER, 1608TYPE
GJ15	24000445	CHIP JUMPER, 1608TYPE
GJ16	24000445	CHIP JUMPER, 1608TYPE
GJ17	24000445	CHIP JUMPER, 1608TYPE
GJ18	24000445	CHIP JUMPER, 1608TYPE
GJ19	24000445	CHIP JUMPER, 1608TYPE
GJ31	24000445	CHIP JUMPER, 1608TYPE
GJ32	24000445	CHIP JUMPER, 1608TYPE
GJ79	24000824	CHIP JUMPER, 2125TYPE
GJ81	24000824	CHIP JUMPER, 2125TYPE
GJ83	24000824	CHIP JUMPER, 2125TYPE
GJ101	24000445	CHIP JUMPER, 1608TYPE
GJ102	24000445	CHIP JUMPER, 1608TYPE
GJ105	24000445	CHIP JUMPER, 1608TYPE
GJ113	24000445	CHIP JUMPER, 1608TYPE
GJ115	24000824	CHIP JUMPER, 2125TYPE
GJ121	24000445	CHIP JUMPER, 1608TYPE
GJ122	24000445	CHIP JUMPER, 1608TYPE
GJ124	24000824	CHIP JUMPER, 2125TYPE
GJ126	24000445	CHIP JUMPER, 1608TYPE
GJ127	24000445	CHIP JUMPER, 1608TYPE
GJ128	24000445	CHIP JUMPER, 1608TYPE
GJ201	24000445	CHIP JUMPER, 1608TYPE
GJ202	24000445	CHIP JUMPER, 1608TYPE
GJ203	24000445	CHIP JUMPER, 1608TYPE
GJ204	24011220	CHIP, METAL FILM, 1/20W 22 OHM J
GJ205	24000445	CHIP JUMPER, 1608TYPE
GJ208	24000445	CHIP JUMPER, 1608TYPE
GJ210	24000445	CHIP JUMPER, 1608TYPE
GJ216	24000445	CHIP JUMPER, 1608TYPE
GJ223	24000445	CHIP JUMPER, 1608TYPE
GJ224	24000445	CHIP JUMPER, 1608TYPE
GJ225	24000445	CHIP JUMPER, 1608TYPE
GJ226	24000445	CHIP JUMPER, 1608TYPE
GJ227	24000445	CHIP JUMPER, 1608TYPE
GJ228	24000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
GJ229	24000445	CHIP JUMPER, 1608TYPE
GJ230	24000445	CHIP JUMPER, 1608TYPE
GJ471	24000445	CHIP JUMPER, 1608TYPE
GJ472	24000445	CHIP JUMPER, 1608TYPE
GJ603	24000445	CHIP JUMPER, 1608TYPE
GJ710	24000445	CHIP JUMPER, 1608TYPE
GJ711	24000445	CHIP JUMPER, 1608TYPE
GJ771	24000445	CHIP JUMPER, 1608TYPE
GJ772	24000445	CHIP JUMPER, 1608TYPE
GJ773	24000445	CHIP JUMPER, 1608TYPE
GJ774	24000445	CHIP JUMPER, 1608TYPE
GJ775	24000445	CHIP JUMPER, 1608TYPE
GJ776	24000445	CHIP JUMPER, 1608TYPE
GJA33	24000445	CHIP JUMPER, 1608TYPE
GR96	24000445	CHIP JUMPER, 1608TYPE
GR99	24000445	CHIP JUMPER, 1608TYPE
H002	23148042	IF MODULE, US WOW MSP3440G, MVUS51
H003	23344488	SWITCH, 2I3O US DIGITAL JALCO, RSU141
H003A	23740989	NUT, F-CONNECTOR 2H BS
JY508	24000445	CHIP JUMPER, 1608TYPE
JY509	24000445	CHIP JUMPER, 1608TYPE
KB01	23000852	IC, REMOTE PHOTO RECEIVER, PIC-37043TE2
P101	23367070	PLUG, NP 2.5MM G JST-EH B10B-EH-F1A
P105	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P111	23367068	PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4
P112	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P113	23368579	CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4
P122	23367068	PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4
P404	23368579	CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4
P410	23368581	CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4
P411	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P412	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
P413	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
P540	23903176	SOCKET, SOCKET 60P TKD 136901160W4
P704	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P706A	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P706B	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P708	23902655	CONNECTOR, B-B 15P
P708B	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P709	23902655	CONNECTOR, B-B 15P
P709B	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P710	23902655	CONNECTOR, B-B 15P
P711	23367724	CONNECTOR, PLUG B-B 15P
P777	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P800	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P801	23372117	POWER CORD, U/C 125V10A HSV 5, CMC-02P 5
P810A	23368581	CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4
P811A	23367070	PLUG, NP 2.5MM G JST-EH B10B-EH-F1A
P813A	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P814A	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
P814B	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
P815A	23367068	PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4
P815B	23367068	PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4
P820	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P870B	23367070	PLUG, NP 2.5MM G JST-EH B10B-EH-F1A
P900	23164563	CONNECTOR, PLUG 3P
P900	23164563	CONNECTOR, PLUG 3P
P900	23164563	CONNECTOR, PLUG 3P
P900	23164563	CONNECTOR, PLUG 3P
P912A	23368579	CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4
P912B	23368579	CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4
P913	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
P914A	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P914B	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
P915A	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P915B	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P916A	23368581	CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4
P916B	23368581	CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4
P917	23368579	CONNECTOR, PLUG, 5P 2.5MM G JST-EH, B5B-EH-F1-TV4
P918	23368580	PLUG, 6P 2.5MM G JST-EH B6B-EH-F1-TV4
P919	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PA01A	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
PA01B	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
PA02A	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PA02B	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PB11	23368587	CONNECTOR, PLUG, 8P 2.5MM W EH-JST, S8B-EH
PB13A	23367677	PLUG, 4P
PB22	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
PB51	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PB60	23367070	PLUG, NP 2.5MM G JST-EH B10B-EH-F1A
PB501	23023128	JACK, PHONE J, YKB21-5290N
PB503	23368577	CONNECTOR, PLUG, 3P 2.5MM G JST-EH, B3B-EH-F1-TV4
PE41	23367069	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B9B-EH-F1A
PE42	23367071	CONNECTOR, PLUG, NP 2.5MM G JST-EH, B11B-EH-F1A
PE50	23368581	CONNECTOR, PLUG, 7P 2.5MM G JST-EH, B7B-EH-F1-TV4
PE51	23368578	CONNECTOR, PLUG, 4P 2.5MM G JST-EH, B4B-EH-F1-TV4
PG5	70163086	JACK 3.5MM, LGY3319-0111
PG10	23903176	SOCKET, SOCKET 60P TKD 136901160W4
PG220	23365763	PHONO JACK, 3P
PG223	23367068	PLUG, 8P 2.5MM G JST-EH B8B-EH-F1-TV4
PV01	23023094	JACK, PIN 1S6P SMK, LAP5120-0205FC
PV02	23365819	JACK, 1S3P
PV02	23023096	JACK, PIN 10P SMK, LAP5120-0401FC
PV05	23023095	JACK, PIN 8P SMK, LAP5120-0411FC

Location No.	Parts No.	Description
PV60	23367070	PLUG, NP 2.5MM G JST-EH B10B-EH-F1A
S601	23344456	SWITCH, SLIDE SK22F28G9A MORNI
SA01	23145226	SWITCH, 1C1P, PUSH
SA02	23145226	SWITCH, 1C1P, PUSH
SA03	23145226	SWITCH, 1C1P, PUSH
SA04	23145226	SWITCH, 1C1P, PUSH
SA05	23145226	SWITCH, 1C1P, PUSH
SA06	23145226	SWITCH, 1C1P, PUSH
SA07	23145226	SWITCH, 1C1P, PUSH
SA08	23145226	SWITCH, 1C1P, PUSH
SA09	23145226	SWITCH, 1C1P, PUSH
SR81	23146574	RELAY, DLS5D1-O(M) 0.15W
SR82	23146564	RELAY, DC12V, TV5, DG-3
UH01	23148077	MODULE, D-CONVER, MDCU11A
UZ01	23148053	SCAN CONVERTER MODUL, G.HYPER MVPU42
UZ02	23148064	MODULE, DIGITAL, SHU152
V901A	23903168	SOCKET, CVT3277-5104G SMK, CVT3277-5104G
V902A	23903168	SOCKET, CVT3277-5104G SMK, CVT3277-5104G
V903A	23903168	SOCKET, CVT3277-5104G SMK, CVT3277-5104G
W661	23351183	SPEAKER, SPK1424AM, 160X160 8-OHM 20W
W662	23351183	SPEAKER, SPK1424AM, 160X160 8-OHM 20W
W663	23351220	SPEAKER, TWC 50X50 16-OHM 20W, SPK-1417BM
W664	23351220	SPEAKER, TWC 50X50 16-OHM 20W, SPK-1417BM
X4402	23153721	CERAMIC RESONATOR, 503KHZ
X4701	23153721	CERAMIC RESONATOR, 503KHZ
XA01	23153533	CERAMIC RESONATOR, CERA RESO, TCR1082AM
XB501	23153504	CERAMIC RESONATOR, 8.00MHZ 25OHM
XG1	23153563	CRYSTAL RESONATOR, 12.0MHZ
XV01	23153533	CERAMIC RESONATOR, CERA RESO, TCR1082AM
XY501	23153961	CRYSTAL, 3.58MHZ
XY502	23153721	CERAMIC RESONATOR, 503KHZ
Z401	23140203	SPARK GAP, 2.0-3.0KV C-010, AG20PC152F-L3N
Z410	23110841	FOCUS PACK, TPA6030
Z450	24083013	COMPOSITE PARTS, CR-BLOCK, TPA5010AH
Z450A	23501755	ANODE CABLE, 400LD FBT-C
ZC21	24019404	CHIP BLOCK, 1/16W P-8 10K OHM J
ZC22	24019439	CHIP BLOCK, 1/16W P-8 47 OHM J
ZC41	24019439	CHIP BLOCK, 1/16W P-8 47 OHM J
ZC42	24019439	CHIP BLOCK, 1/16W P-8 47 OHM J
ZC44	24019403	CHIP BLOCK, 1/16W P-8 100K OHM J
ZC45	24019403	CHIP BLOCK, 1/16W P-8 100K OHM J
ZC46	24019403	CHIP BLOCK, 1/16W P-8 100K OHM J
ZC47	24019403	CHIP BLOCK, 1/16W P-8 100K OHM J
ZC48	24019439	CHIP BLOCK, 1/16W P-8 47 OHM J
ZG1	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
ZG2	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
ZG3	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
ZG4	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
ZG5	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
ZG6	24019436	CHIP BLOCK, 1/16W P-8 22 OHM J
ZH04	23103778	FILTER, FERRITE CORE, TFE1008
ZH05	23103840	FERRITE CORE, TFE1013
ZI51	23303197	PIF SAW FILTER, TSF1248P
ZI52	23303271	FILTER, TRAP 4.5MHZ, TCF1138AM
ZI53	23303289	FILTER, TCF1141AM
ZI55	23303244	FILTER, CERAMIC TRAP, TCF1121AM
ZV60	23103778	FILTER, FERRITE CORE, TFE1008

PC BOARD ASSEMBLIES

✻ E031Z	23788905	CRT-D/R BOARD, PD1153C-1
✻ E032Z	23788906	CRT-D/G BOARD, PD1153C-2
✻ E033Z	23788907	CRT-D/B BOARD, PD1153C-3
✻ E034Z	23788908	SVM/R BOARD, PD1153C-4
✻ E035Z	23788909	SVM/G BOARD, PD1153C-5
✻ E036Z	23788910	SVM/B BOARD, PD1153C-6
✻ E041Z	23788825	FRONT-CON BOARD, PD1154B-1
✻ E042Z	23761378	FRONT-IN BOARD, PD1154B-2
✻ E043Z	23788827	REM BOARD, PD1154B-3
✻ E044Z	23788828	FRONT-SEN BOARD, PD1154B-4
✻ E045Z	23788823	IR BLASTER BOARD, PD1289
✻ E051Z	23786222	CONV-SEN BOARD, PD0079-1
✻ E052Z	23786223	CONV-SEN2 BOARD, PD0079-2
✻ E053Z	23786224	CONV-SEN3 BOARD, PD0079-3
✻ E054Z	23786225	CONV-SEN4 BOARD, PD0079-4
✻ U401	23788897	DEFCONVER BOARD, PD1147D
✻ U701	23788563	CONVER OUT BOARD, PD1163A-2
✻ U801	23788756	POWER BOARD, PD1151C
✻ U802	23788757	SUB POWER BOARD, PD1284
✻ U901	23788898	SIGNAL BOARD, PD1146D
✻ UC01	23788787	MULTI CARD BOARD, PD1281
✻ UD01	23788562	DD CON BOARD, PD1163A-1
✻ UF01	23761108	IF BOARD, PD1022C
✻ UG01	23788760	GEMSTAR BOARD, PD1283
✻ UV02	23788762	DVI BOARD, PD0647B
✻ UV03	23788759	REC OUT BOARD, PD1282

PICTURE TUBE

⚠ V901R	23072791	OTHER BLOCK, COUPLING R (51HX93)
⚠ V901R	23072139	OTHER BLOCK, COUPLING R (57HX93)
⚠ V901R	23072794	OTHER BLOCK, COUPLING R (65HX93)
⚠ V902G	23072792	OTHER BLOCK, COUPLING G (51HX93)
⚠ V902G	23072140	OTHER BLOCK, COUPLING G (57HX93)
⚠ V902G	23072795	OTHER BLOCK, COUPLING G (65HX93)
⚠ V903B	23072793	OTHER BLOCK, COUPLING B (51HX93)
⚠ V903B	23072141	OTHER BLOCK, COUPLING B (57HX93)
⚠ V903B	23072796	OTHER BLOCK, COUPLING B (65HX93)

TUNER

H001	23321460	TUNER, US181CH IIC FONO 5V, ELA52LX2
HY01	23321460	TUNER, US181CH IIC FONO 5V, ELA52LX2

ACCESSORIES

K912	23306510	REMOCON HAND UNIT IR, DTVUSA, CT-90168
K913	23306465	REMOCON HAND UNIT, IR BLAST VTR CONT
Y101	23566005	OWNER'S MANUAL, ENGLISH/FRENCH, 51HX93/57HX93/65HX93

CABINET PARTS

A001	23411874	CABINET, WOOD CAB SHIP (51HX93)
A001	23411875	CABINET, WOOD CAB SHIP (57HX93)
A001	23411876	CABINET, WOOD CAB SHIP (65HX93)
A102	23527286	GRILLE, SPEAKER GRILLE ASY (51HX93)
A102	23527287	GRILLE, SPEAKER GRILLE ASY (57HX93)
A102	23527288	GRILLE, SPEAKER GRILLE ASY (65HX93)
A160	23469228	CASTER
A201	23532587	PROTECT SCREEN/ COVER, BEZEL (51HX93)
A201	23532589	PROTECT SCREEN/ COVER, BEZEL (57HX93)
A201	23532590	PROTECT SCREEN/ COVER, BEZEL (65HX93)
A202	23450700	PANEL, CONTROL PANEL ASSEMBLY
A213	23428229	DOOR, DOOR
A215	23929911	PIECE, SNAP-IN GEAR DAMPER CONNON

Location No.	Parts No.	Description
A222	23929910	PIECE, FILTER
A223	23445719	BUTTON, POWER BUTTON
A268	23530772	COVER, FRONT COVER (51HX93)
A268	23530770	COVER, FRONT COVER (57HX93)
A331	23929942	PIECE, BOTTOM POLE L (51HX93)
A331	23929940	PIECE, BOTTOM POLE L (57HX93)
A332	23929943	PIECE, BOTTOM POLE R (51HX93)
A332	23929941	PIECE, BOTTOM POLE R (57HX93)
A401	23530781	COVER, BACK COVER (51HX93)
A401	23530761	BACK COVER ASSY (57HX93)
A401	23530774	COVER, BACK COVER ASSY (65HX93)
A421	23530812	COVER, REAR BOARD
A424	23530784	COVER, BACKBOARD
A510	23030815	SCREW, WOOD, PTD #6 X 3/4
A701	23067147	CARTON (51HX93)
A701	23067146	CARTON (57HX93)
A701	23064865	CARTON, CARTON (65HX93)
A703	23946479	PACKING, TOP PACKING (51HX93)
A703	23946481	PACKING, TOP PACKING (57HX93)
A703	23946500	PACKING, TOP (65HX93)
A708	23946478	PACKING, BOTTOM PACKING (51HX93)
A708	23946480	PACKING, BOTTOM PACKING (57HX93)
A708	23946499	PACKING, BOTTOM (65HX93)
A709	23946483	PACKING, BOTTOM TRAY (51HX93)
A709	23946187	PACKING, BASE TRAY (57HX93)
A709	23946211	PACKING, BASE TRAY (65HX93)
A721	23943628	PLYETHLENE COVERING 46GM88T
K501	23311015	SCREEN, 51KNH LENTICULAR SHEET, SCREEN51KNHL (51HX93)
K501	23311955	SCREEN, 57DM LENTICULAR SHEET, SCREEN57DM-L (57HX93)
K501	23311953	SCREEN, 65DM LENTICULAR SHEET, SCREEN65DM-L (65HX93)
K502	23311016	SCREEN, 51KN FRESNEL SHEET, SCREEN51KN-F (51HX93)
K502	23311956	SCREEN, 57DM FRESNEL SHEET, SCREEN57DM-F (57HX93)
K502	23311954	SCREEN, 65DM-F FRESNEL SHEET, SCREEN65DM-F (65HX93)
K503	23463013	SHIELDING, PROTECTIVE SHIELD (51HX93)
K503	23464992	SHIELDING, PROTECTIVE SHIELD (57HX93)
K503	23463014	SHIELDING, PROTECTIVE SHIELD (65HX93)
K601	23405249	MIRROR, 51WL (51HX93)
K601	23405028	MIRROR, 57WL 1070/770x600x3 (57HX93)
K601	23405029	MIRROR, MIRROR65WL (65HX93)

Location No.	Parts No.	Description

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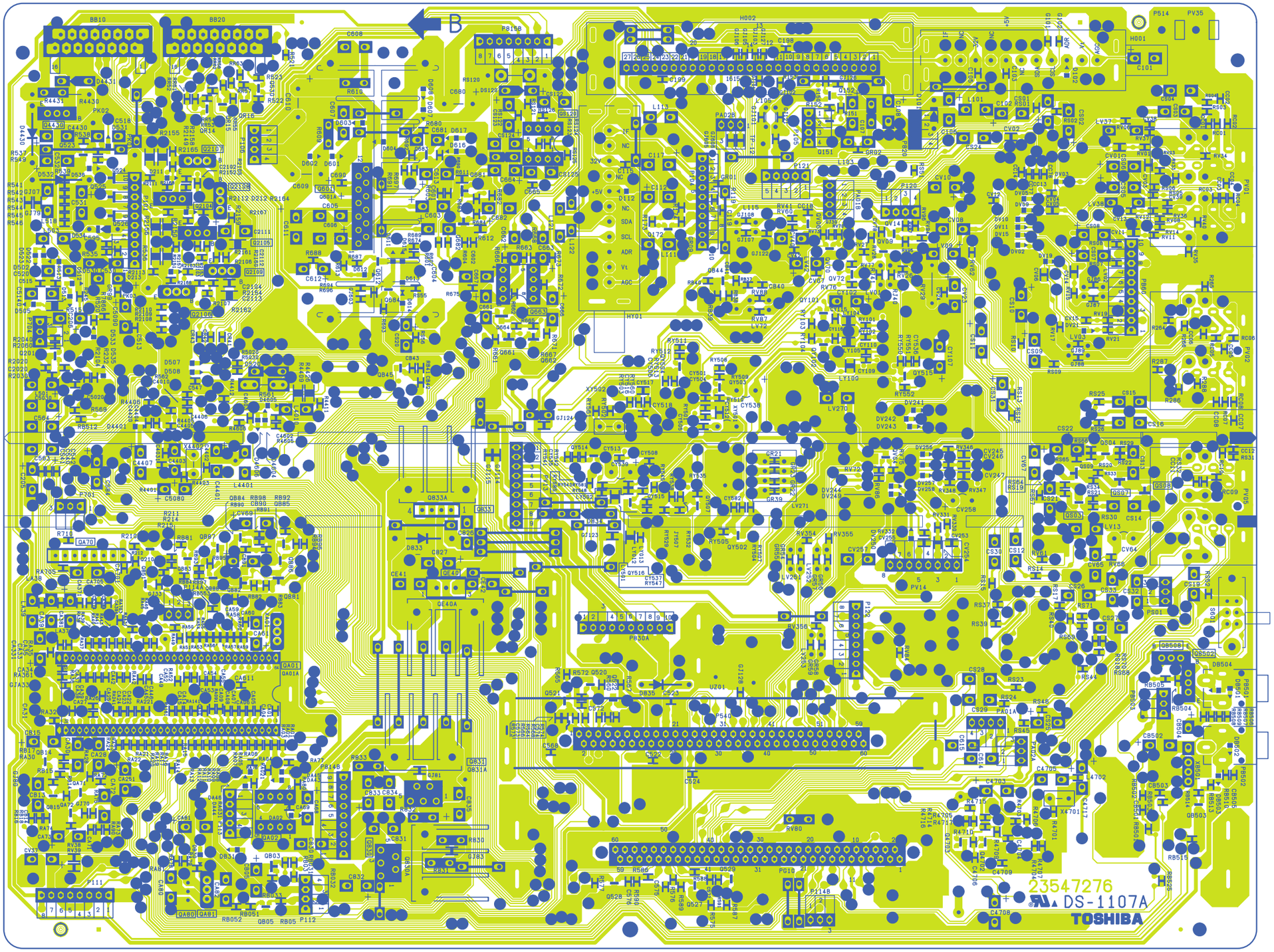
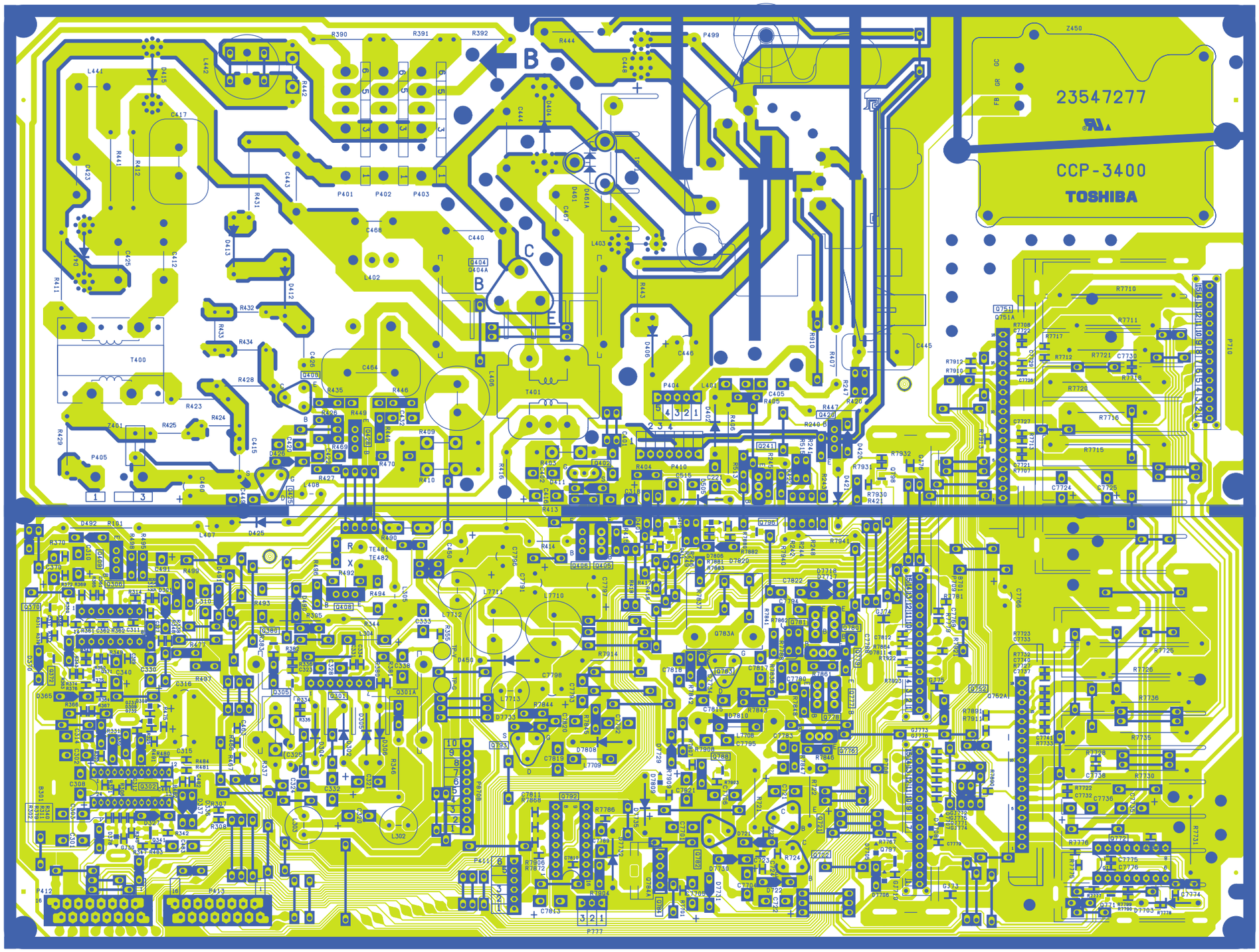
SIGNAL BOARD PD1146D

BOTTOM (FOIL) SIDE



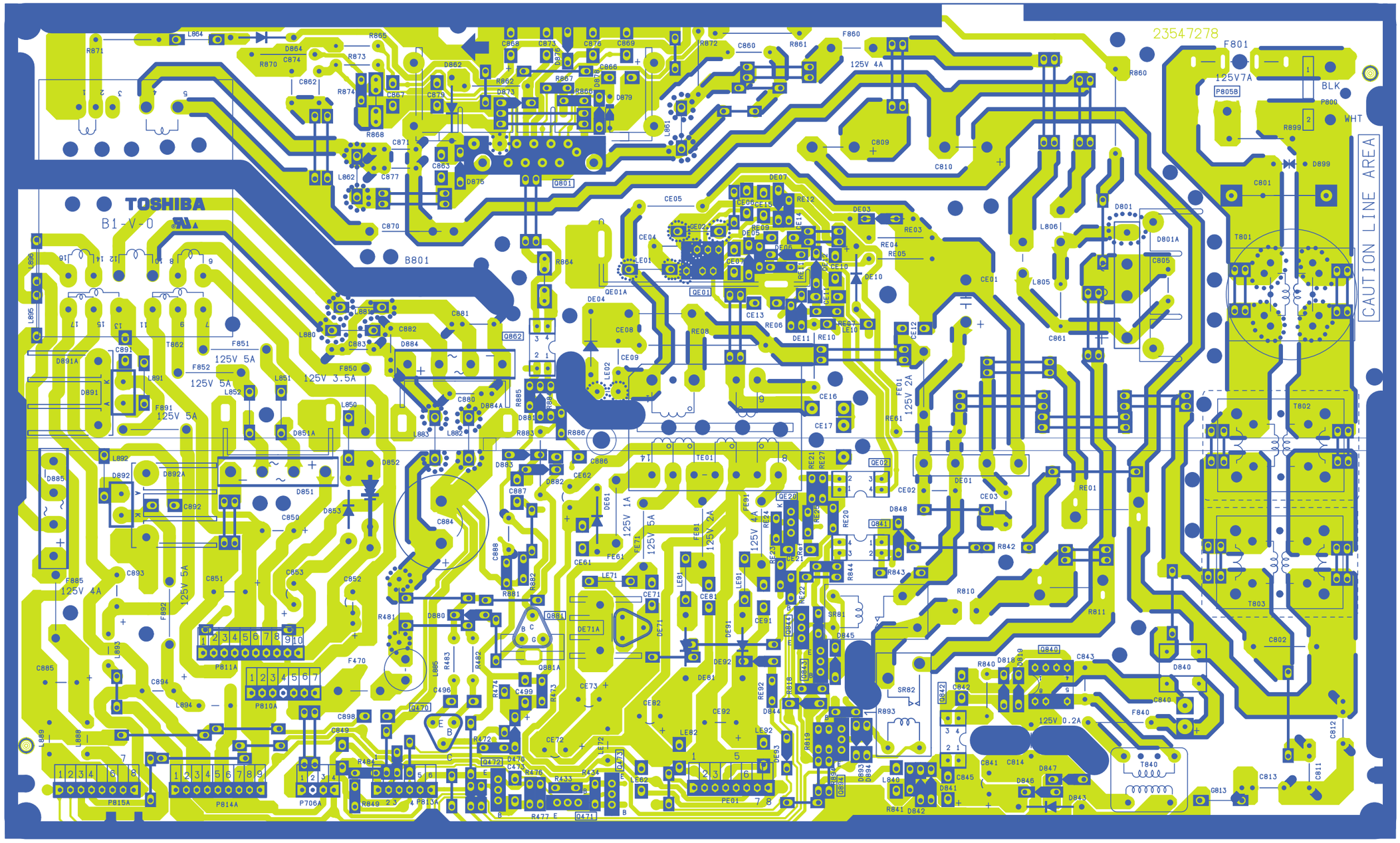
DEF/CONVER BOARD PD1147D

BOTTOM (FOIL) SIDE



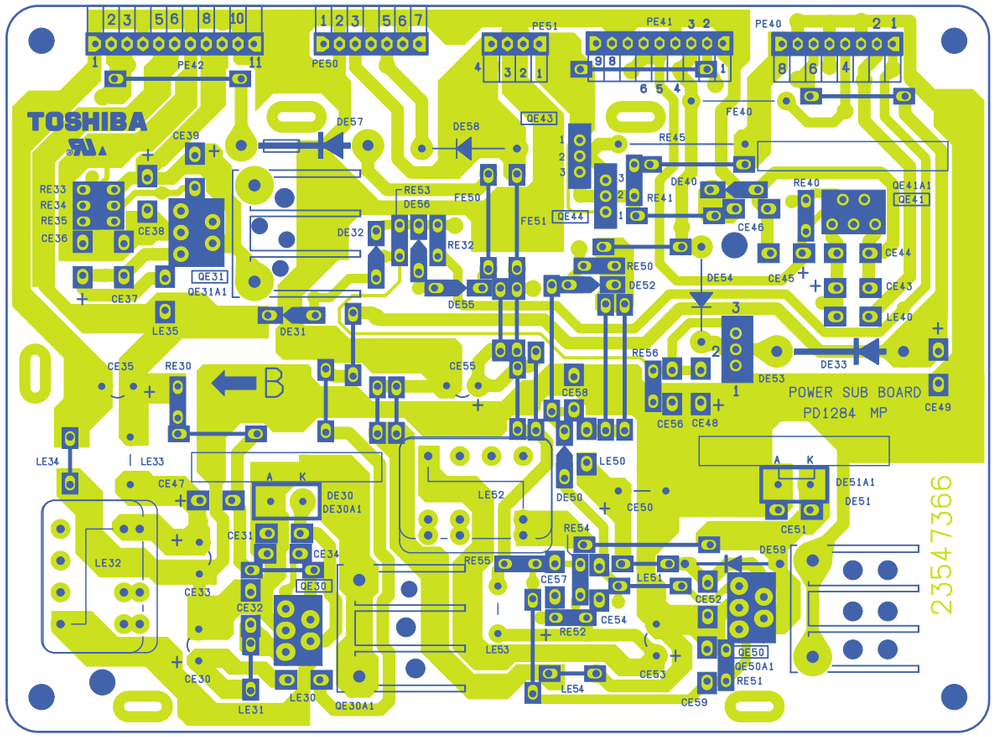
POWER BOARD PD1151C

BOTTOM (FOIL) SIDE



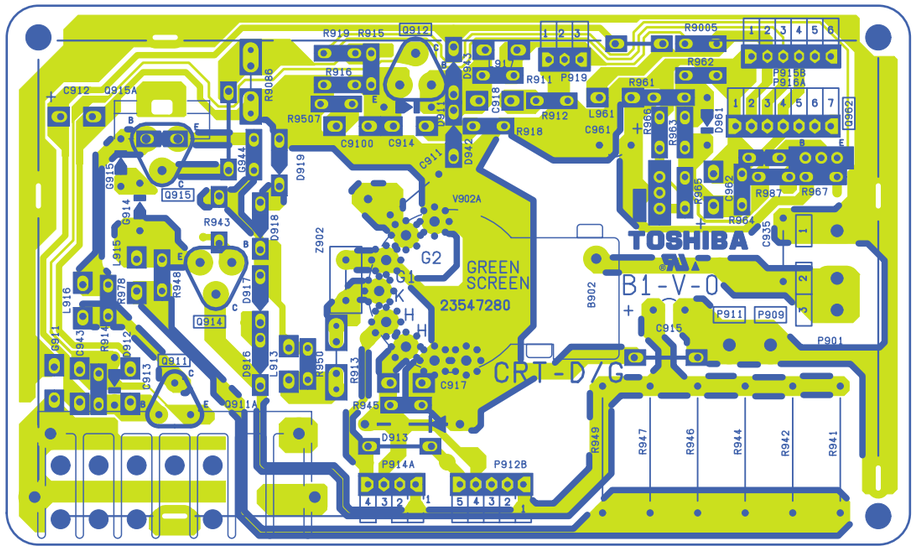
SUB POWER BOARD PD1284

BOTTOM (FOIL) SIDE



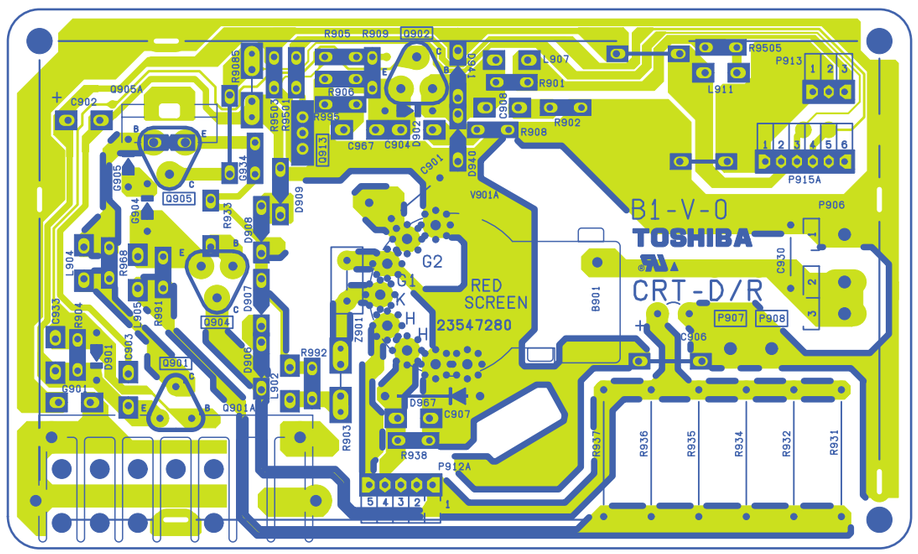
CRT-D/G BOARD PD1153C-2

BOTTOM (FOIL) SIDE



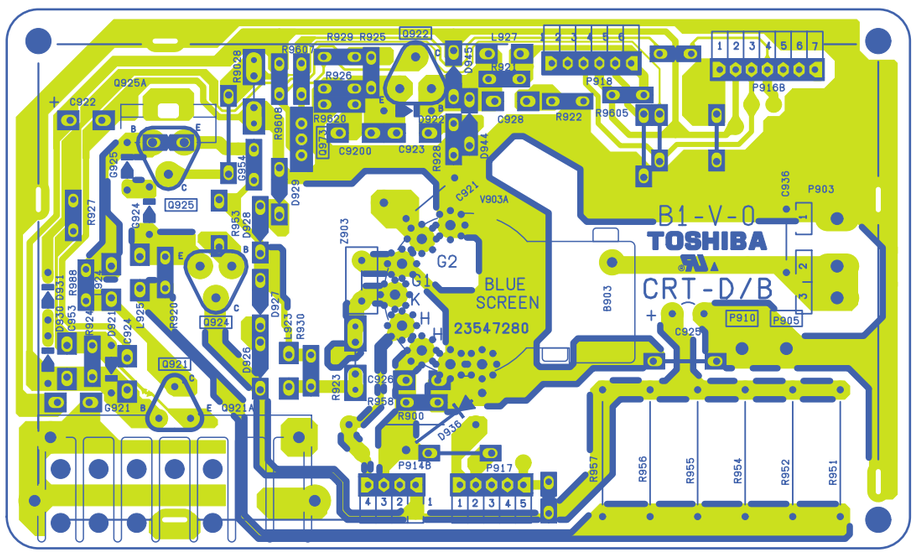
CRT-D/R BOARD PD1153C-1

BOTTOM (FOIL) SIDE



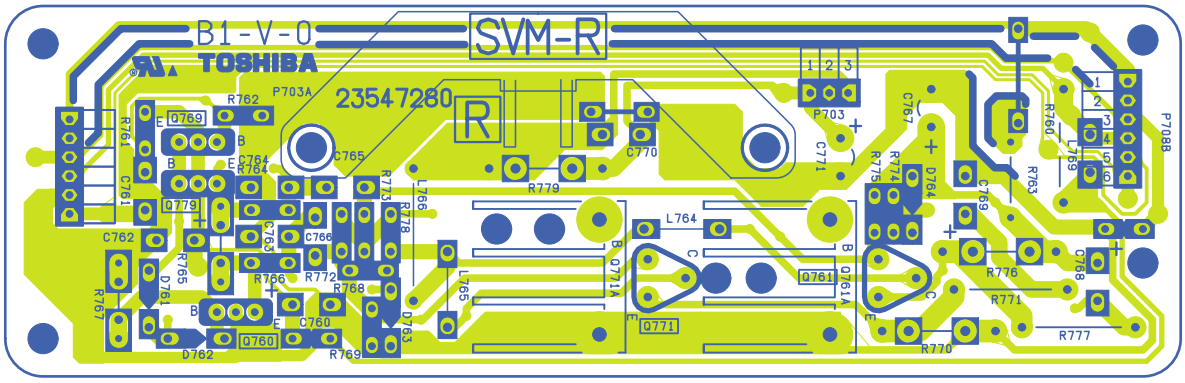
CRT-D/B BOARD PD1153C-3

BOTTOM (FOIL) SIDE



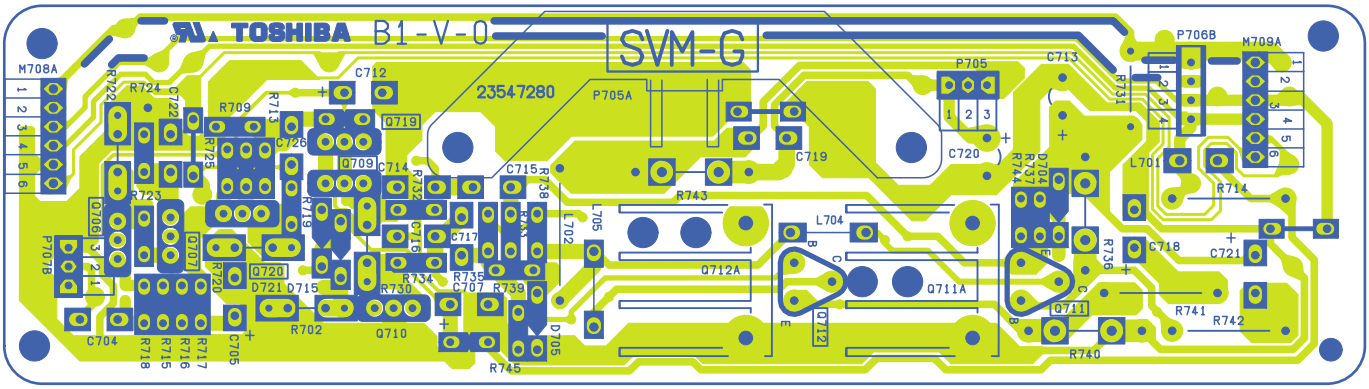
SVM/R BOARD PD1153C-4

BOTTOM (FOIL) SIDE



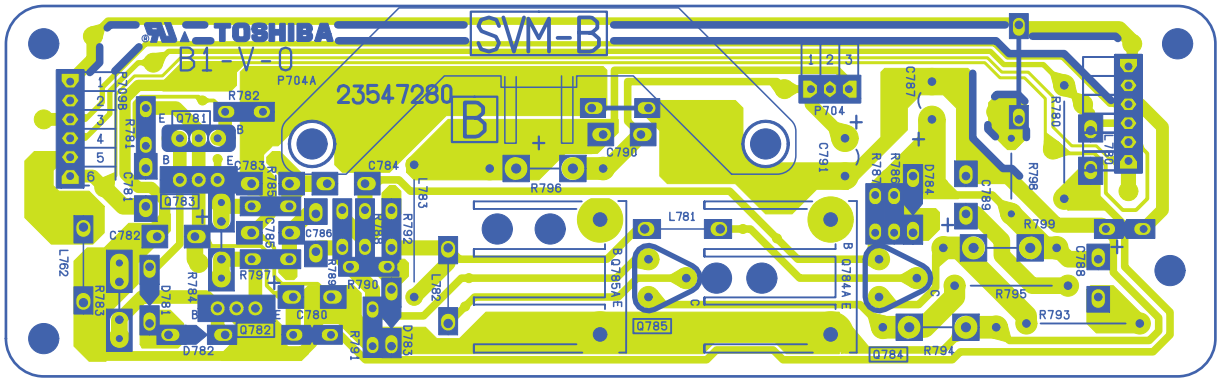
SVM/G BOARD PD1153C-5

BOTTOM (FOIL) SIDE



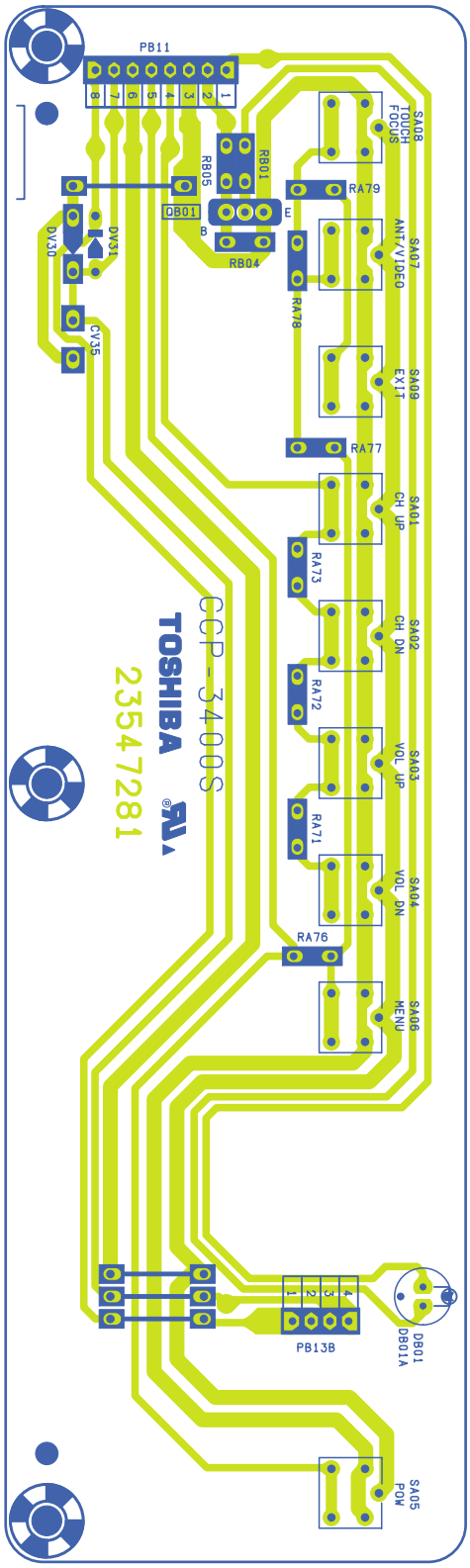
SVM/B BOARD PD1153C-6

BOTTOM (FOIL) SIDE



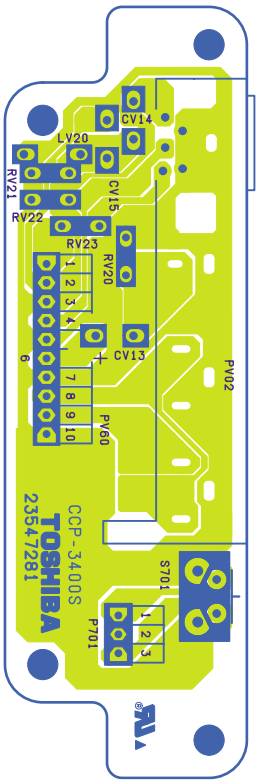
FRONT-CON BOARD PD1154B-1

BOTTOM (FOIL) SIDE



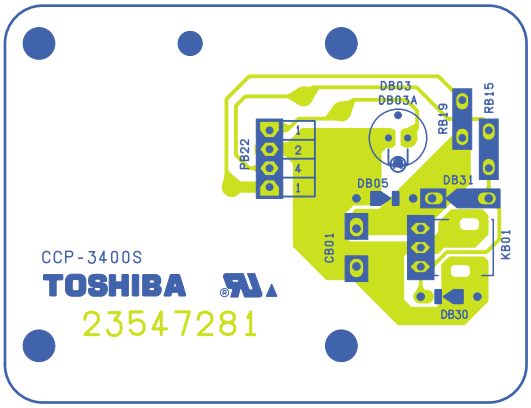
FRONT-IN BOARD PD1154B-2

BOTTOM (FOIL) SIDE



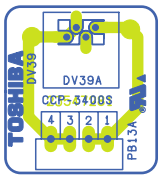
REM BOARD PD1154B-3

BOTTOM (FOIL) SIDE



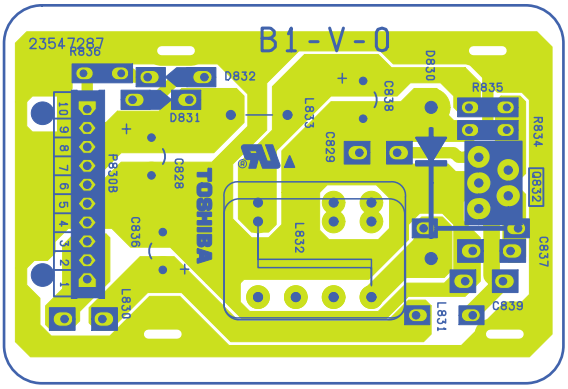
FRONT-SEN BOARD PD1154B-4

BOTTOM (FOIL) SIDE



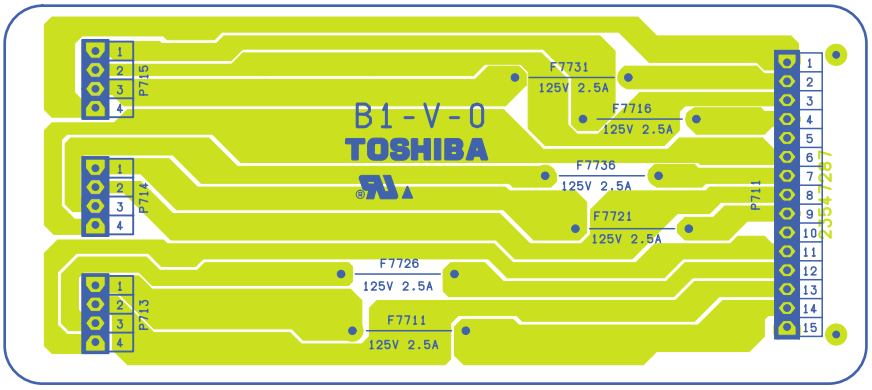
DD CON BOARD PD1163A-1

BOTTOM (FOIL) SIDE



CONVER OUT BOARD PD1163A-2

BOTTOM (FOIL) SIDE

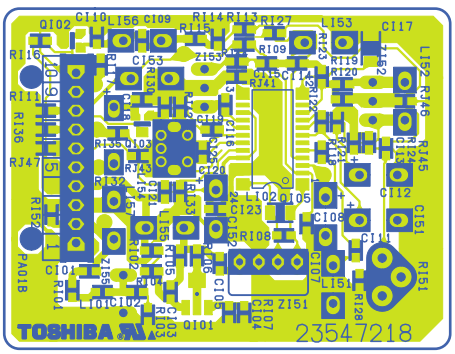


CONV-SEN BOARD PD0079

BOTTOM (FOIL) SIDE

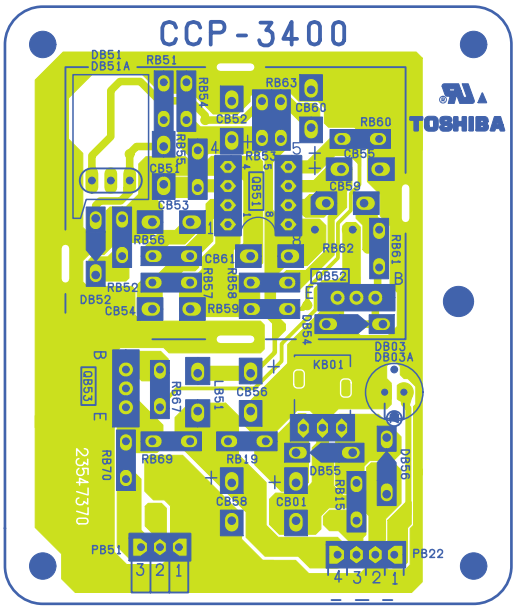
IF BOARD PD1022C

BOTTOM (FOIL) SIDE



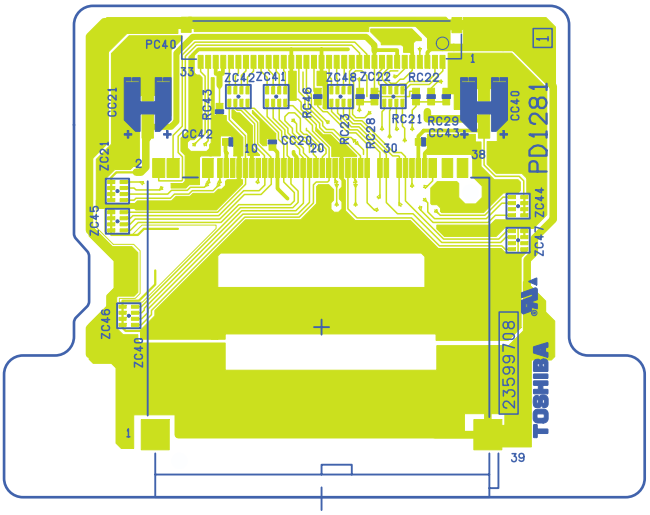
IR BLASTER BOARD PD1289

BOTTOM (FOIL) SIDE



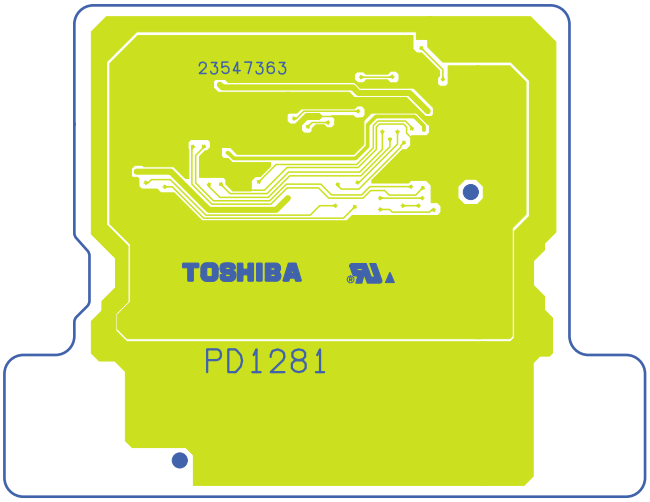
MULTI CARD BOARD PD1281

TOP (FOIL) SIDE



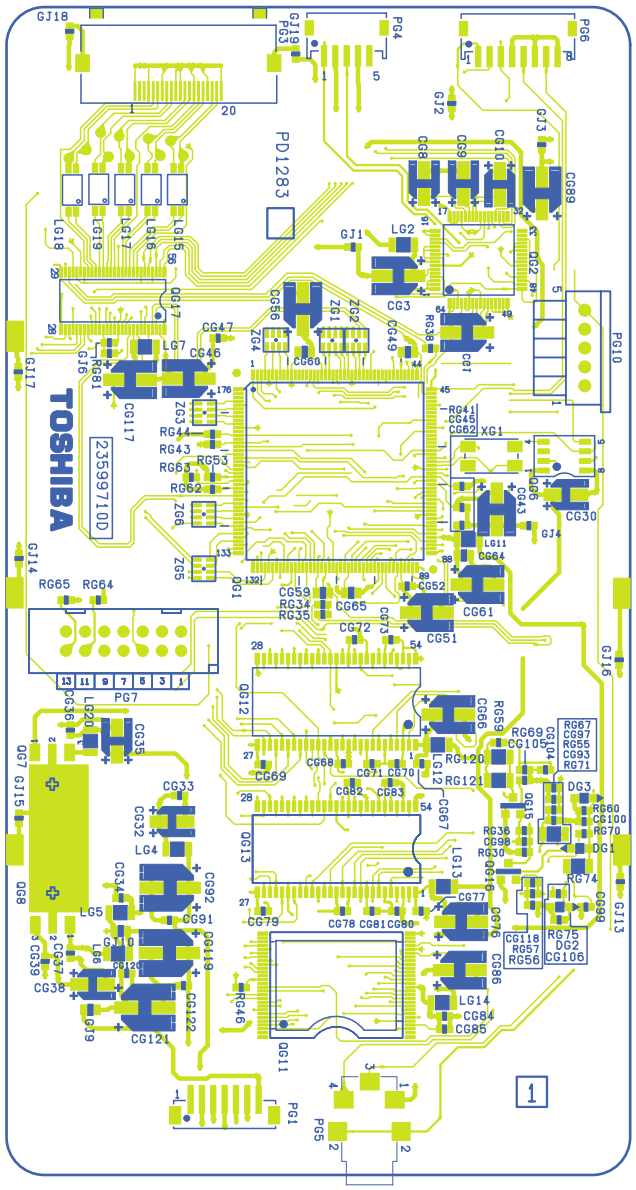
MULTI CARD BOARD PD1281

BOTTOM (FOIL) SIDE



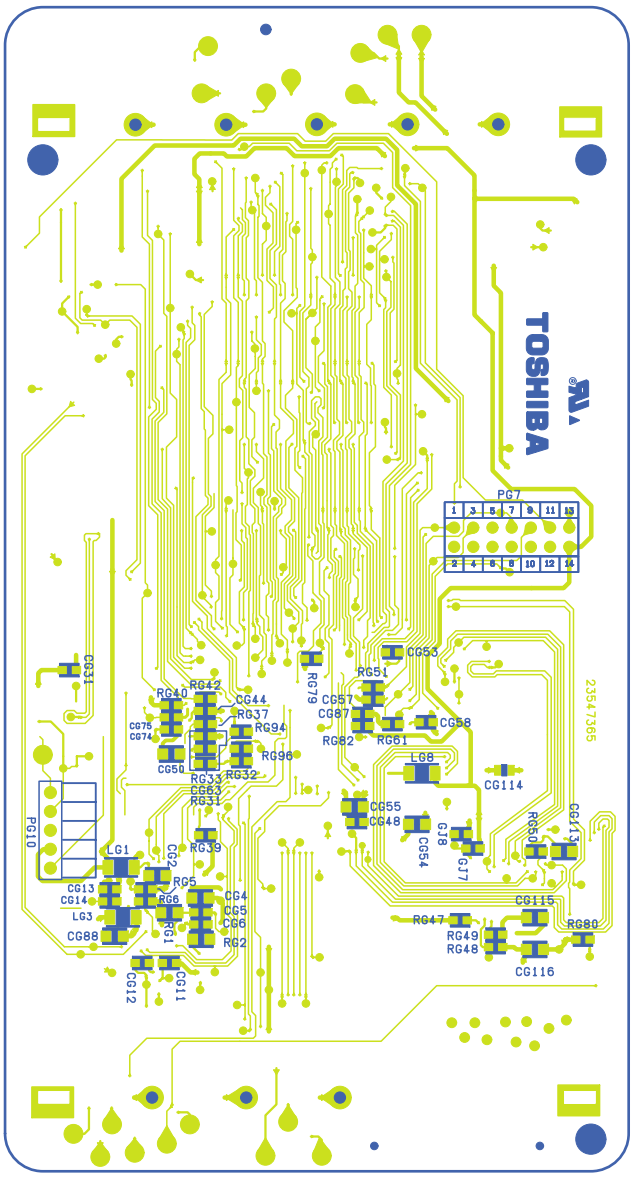
GEMSTAR BOARD PD1283

TOP (FOIL) SIDE



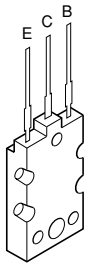
GEMSTAR BOARD PD1283

BOTTOM (FOIL) SIDE

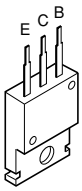


TERMINAL VIEW OF TRANSISTORS

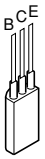
① 2SC5144
2SC5859



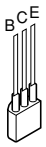
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



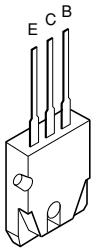
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



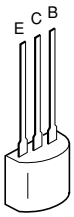
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



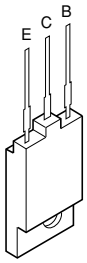
⑤ 2SA1788



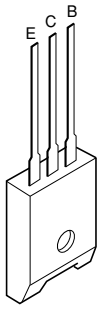
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SD2553
2SC5143



⑧ ON4409



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SCHEMATIC DIAGRAM

MODEL : 51HX93/ 57HX93 / 65HX93

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

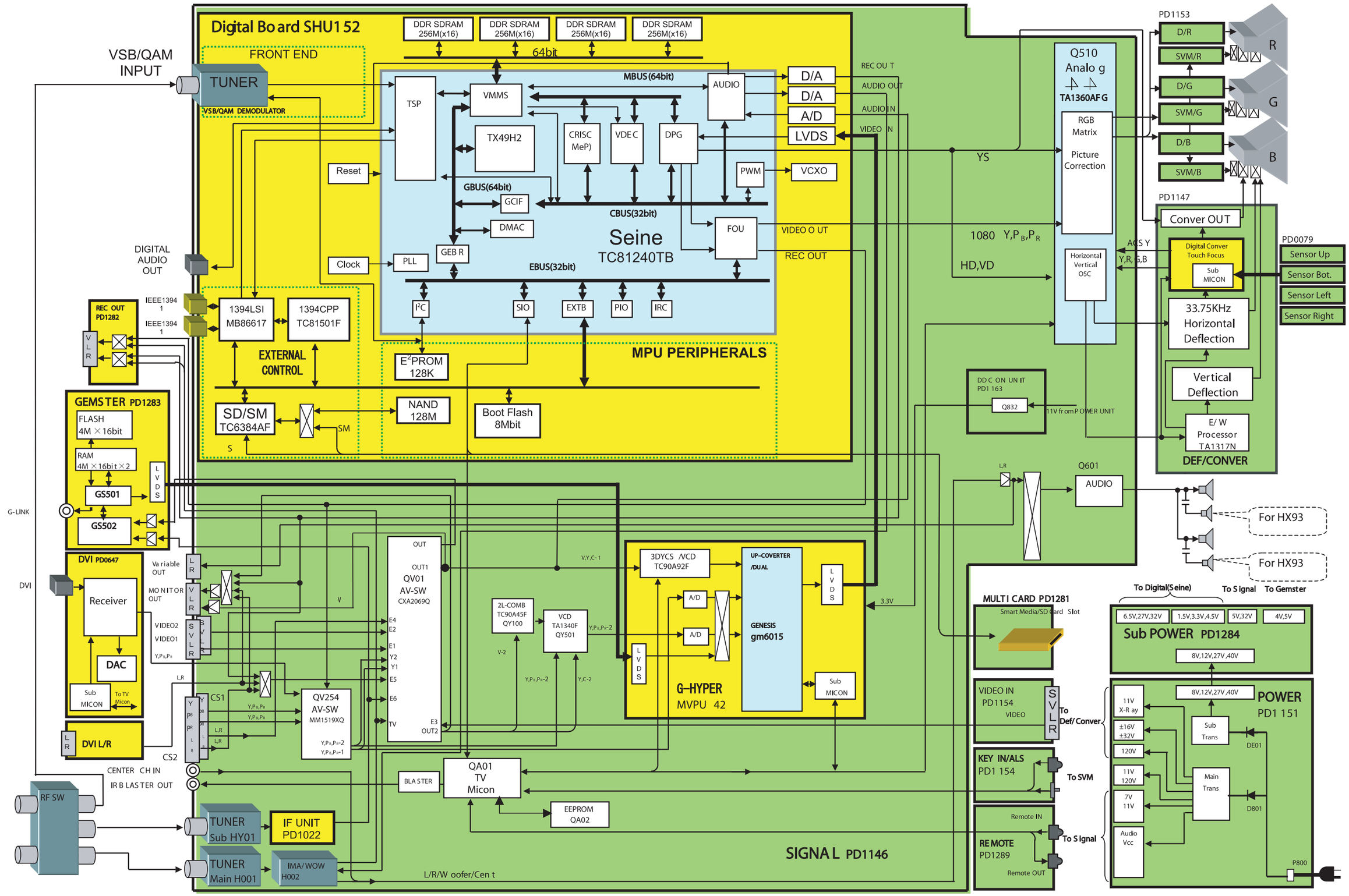
NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   —|(+)|— Electolytic capacitor —|(M)|— Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 120 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

- SIGNAL Circuit
  - Audio [SHEET - 1/9] 1/25
  - AV-1 [SHEET - 2/9] 2/25
  - Maicon [SHEET - 3/9] 3/25
  - REGULATOR [SHEET - 4/9] 4/25
  - Video [SHEET - 5/9] 5/25
  - AV-2 [SHEET - 6/9] 6/25
  - AV-3 [SHEET - 7/9] 7/25
  - IF [SHEET - 8/9] 8/25
  - SYNC OUT [SHEET - 9/9] 9/25
- DEF / CONVER Circuit
  - Vertical [SHEET - 1/3] 10/25
  - DEF [SHEET - 2/3] 11/25
  - CONVER-OUT [SHEET - 3/3] 12/25
- POWER Circuit
  - (1/2) [SHEET - 1/2] 13/25
  - (2/2) [SHEET - 2/2] 14/25
- SUB-POWER Circuit 15/25
- IF Circuit 16/25
- DD-CON Circuit
  - (1/2) [SHEET - 1/2] 17/25
  - CONVER-OUT (2/2) [SHEET - 2/2] 18/25
- CRT / SVM Circuit
  - CRT-DRIVE [SHEET - 1/2] 19/25
  - SVM [SHEET - 2/2] 20/25
- FRONT Circuit 21/25
- IR BLASTER Circuit 22/25
- T. FOCUS-SENSOR Circuit 23/25
- REC OUT Circuit 24/25
- GEMSTAR Circuit 25/25

CIRCUIT BLOCK DIAGRAM



SPECIFICATIONS

Television System
- NTSC standard
- ATSC standard (8VSB)
- Digital Cable (64 QAM, 256 QAM; in-the-clear, unencrypted)

Channel Coverage
- VHF: 2 through 13
- UHF:14 through 69
- Cable TV: Mid band (A-8 through A-1, A through I)
  Super band (J through W)
  Hyper band (AA through ZZ, AAA, BBB)
  Ultra band (65 through 94,100 through 125)

Power Source
- 120 V AC, 60 Hz

Power Consumption
- 210 W

Audio Power
- 20 W + 20 W

Speaker Type
- Two 6-5/16 inches (16 cm) round
- Two 2-1/20 inches (5.2 cm) round (Tweeter)

Video/Audio Terminals
- S-VIDEO INPUT
  - Y :1 V(p-p),75 ohm, negative sync.
  - C :0.286 V(p-p)(burst signal), 75 ohm
- VIDEO/AUDIO INPUT
  - VIDEO: 1 V(p-p),75 ohm, negative sync.
  - AUDIO: 150 mV (rms)(30% modulation equivalent, 47 k ohm)
- ColorStream ® (component video) INPUT
  - Y :1V(p-p), 75 ohm
  - P_R:0.7 V(p-p), 75 ohm
  - P_B:0.7 V(p-p), 75 ohm
  - AUDIO:150 mV (rms), 47 k ohm
  - Suggested scan rates: 1080i, 480p, 480i, 720p
- VIDEO/AUDIO OUTPUT
  - VIDEO: 1 V(p-p), 75 ohm,negative sync.
  - AUDIO: 150 mV(rms)(30% modulation equivalent, 4.7 k ohm)
- VARIABLE AUDIO OUTPUT
  - 0–300 mV(rms)(30%modulation equivalent, 4.7 k ohm)
- REC (RECORD) OUT
  - VIDEO: 1 V(p-p), 75 ohm, negative sync.
  - AUDIO: 200 mV(rms) (–20 dBFS, 4.7 k ohm)
  - (For ATSC, Digital Cable, IEEE-1394 sources only)
- AUDIO CENTER CHANNEL INPUT
  - 300 mV(rms)(30% modulation equivalent, 10 k ohm)
- DVI/HDCP INPUT
  - HDCP compliant
  - E-EDID* 1.3 compliant
  - DVI-D uncompressed, high-speed, digital single-link connection
  - Suggested scan rates:1080i, 480p, 480i, 720p
  - G-LINK and IR OUT: 3 V(p-p), 3.5mm mono socket (IR blaster cables supplied)
  - IEEE-1394 IN/OUT: IEEE-1394 compliant

Dimensions

51HX93:	Width	47-9/16 inches (1208 mm)
	Height	50-1/2 inches (1283 mm)
	Depth	22 inches (559 mm)
57HX93:	Width	52-3/4 inches (1340 mm)
	Height	55-3/4 inches (1416 mm)
	Depth	23-9/16 inches (598 mm)
65HX93:	Width	59-7/8 inches (1521 mm)
	Height	59-7/8 inches (1521 mm)
	Depth	26 inches (660 mm)

Mass
- 51H93:169 lbs (76.6 kg)
- 57H93:204 lbs (92.5 kg)
- 65H93:240 lbs (109 kg)

Supplied Accessories
- Two dual-wand IR blaster cables
- RRemote control with two size “AA” alkaline batteries

* E-EDID = Enhanced-Extended Display Identification

Design and specifications are subject to change without notice.
Please refer to owner's manual in detail.

– END –

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

SCHEMATIC DIAGRAM

MODEL : 51HX93 / 57HX93 / 65HX93

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   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
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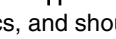
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   Electolytic capacitor  Mylar capacitor
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  - Maicon [SHEET - 3/9] 3/25
  - REGULATOR [SHEET - 4/9] 4/25
  - Video [SHEET - 5/9] 5/25
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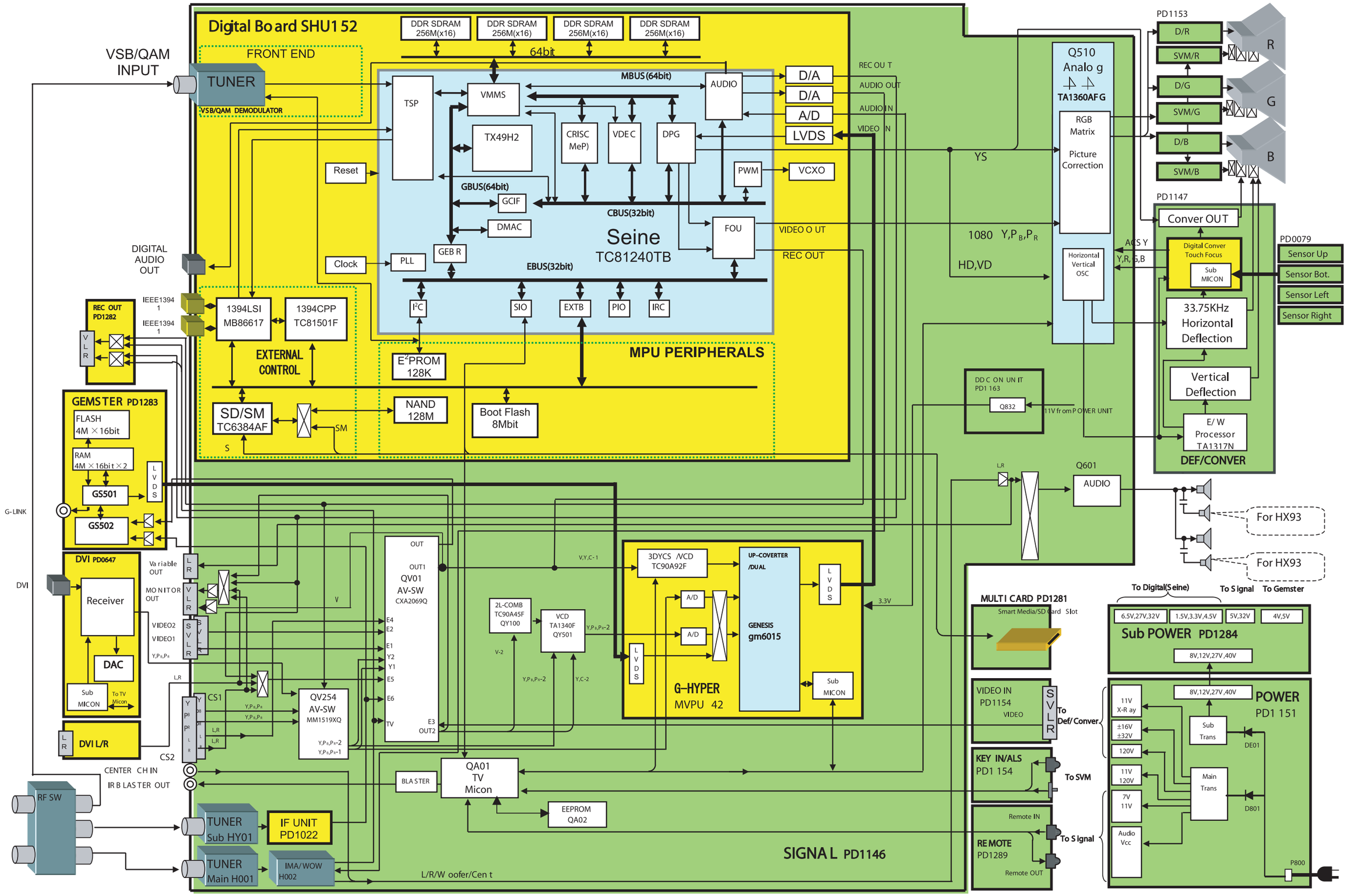
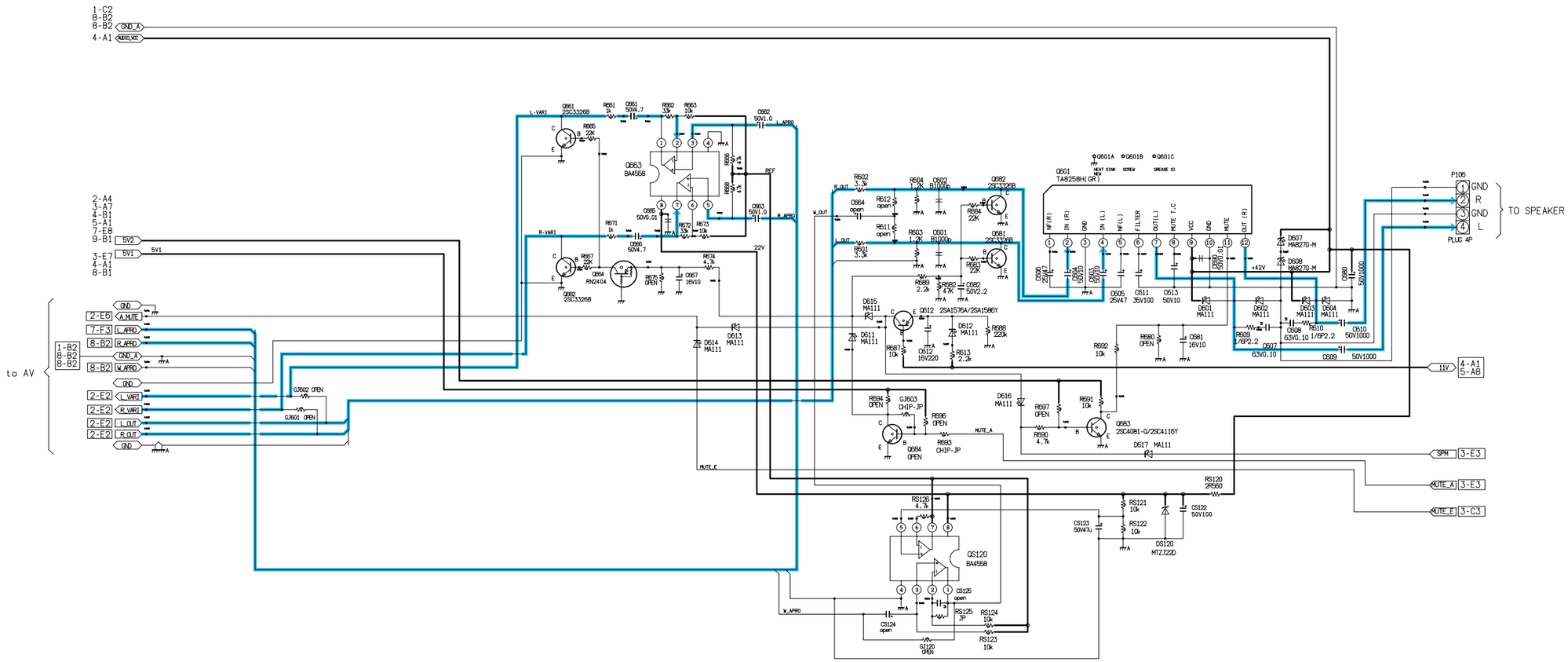
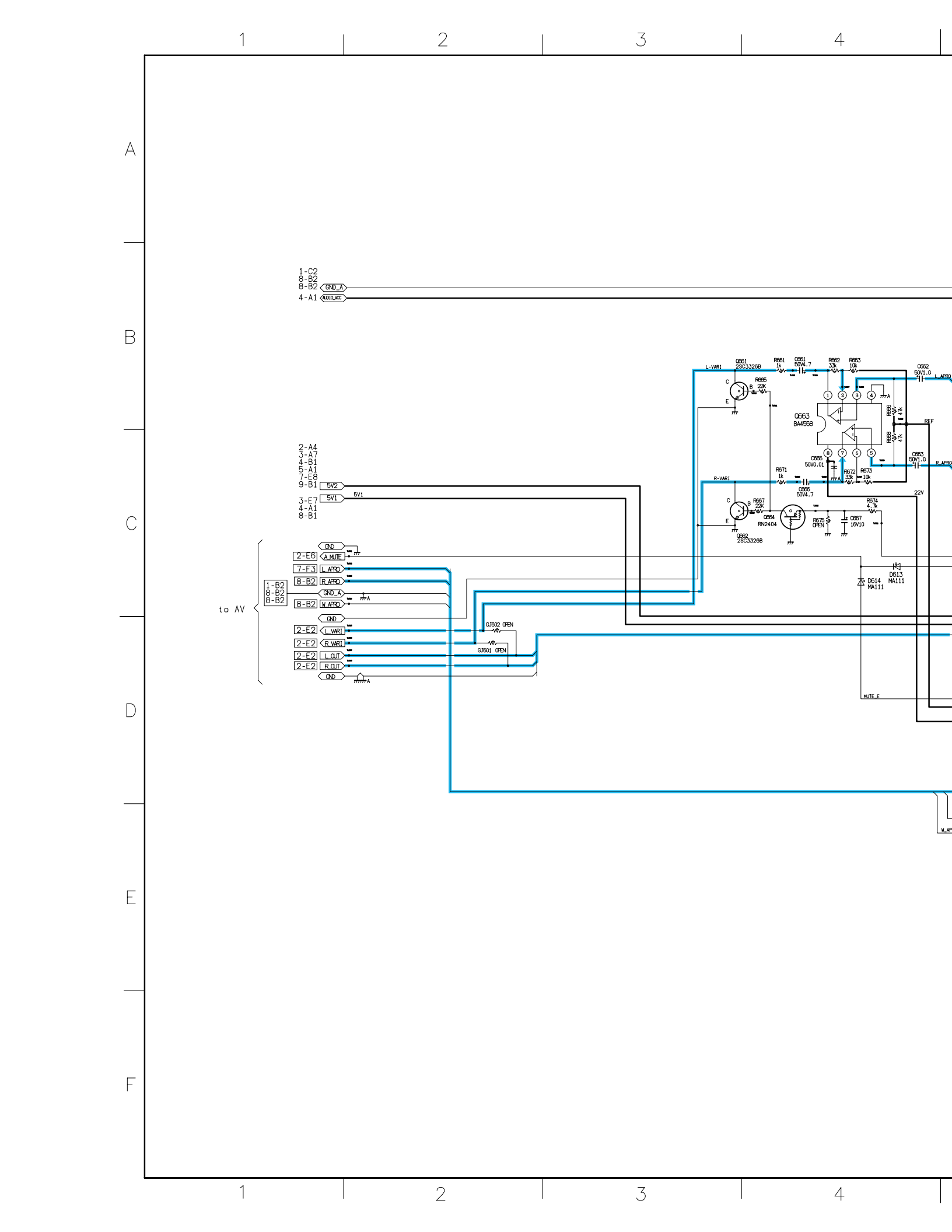
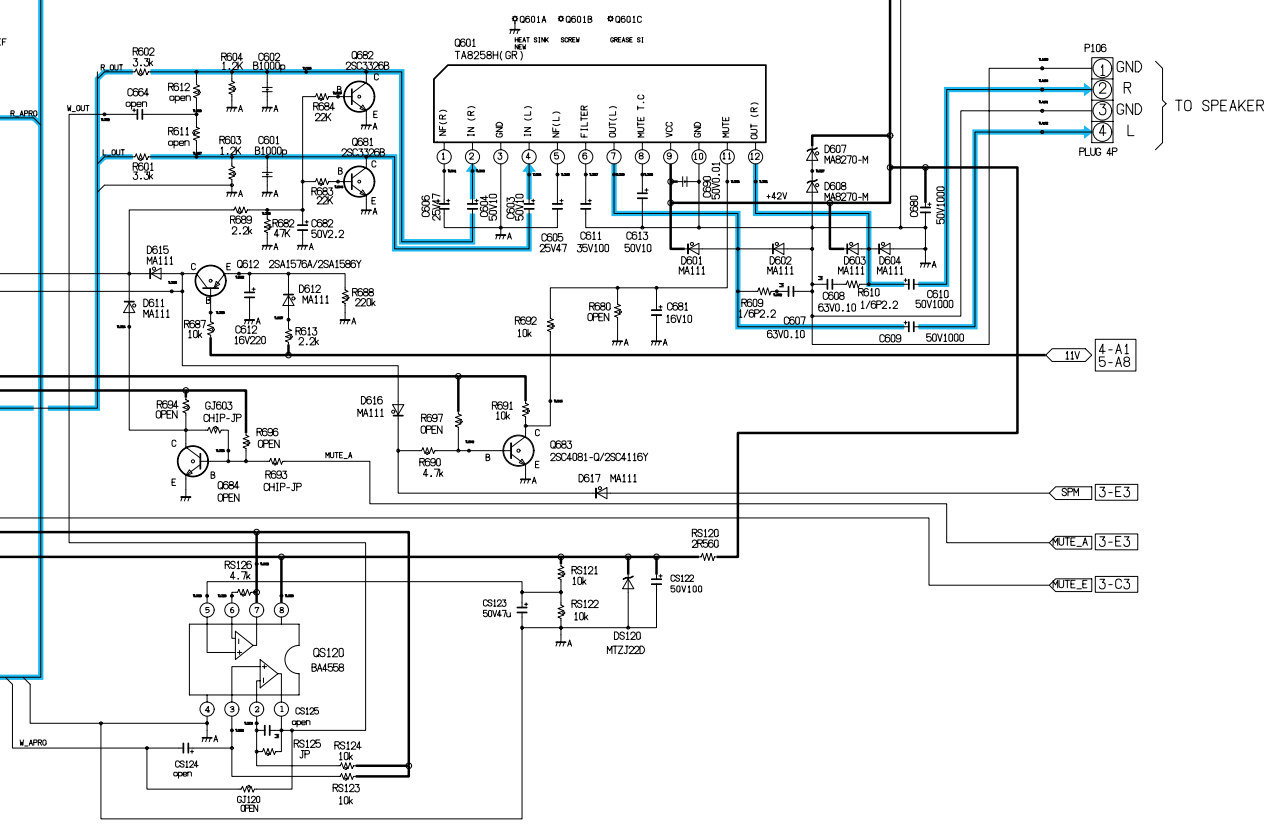
CIRCUIT BLOCK DIAGRAM





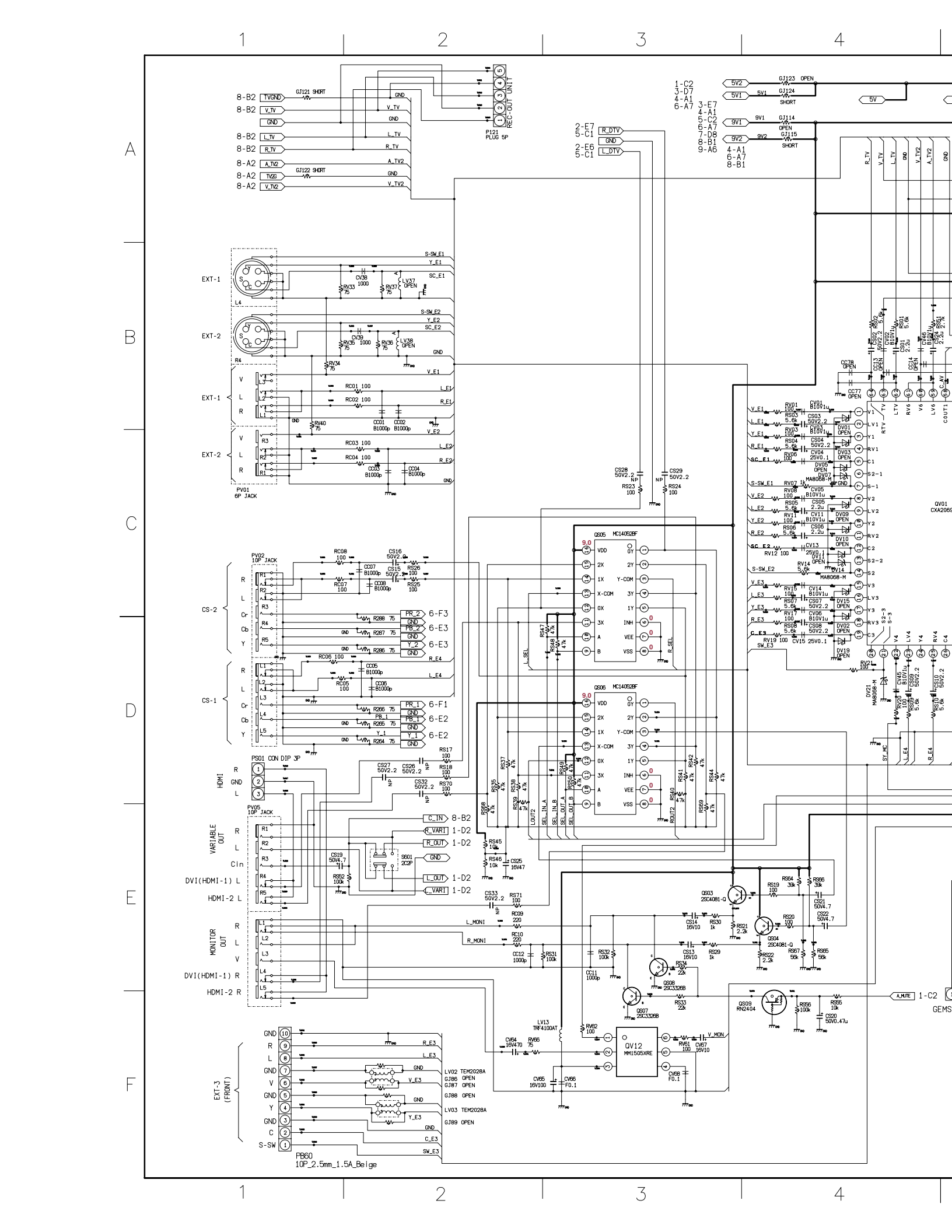
51H93/57H93/65H93
SIGNAL - Audio
[SHEET-1/9]

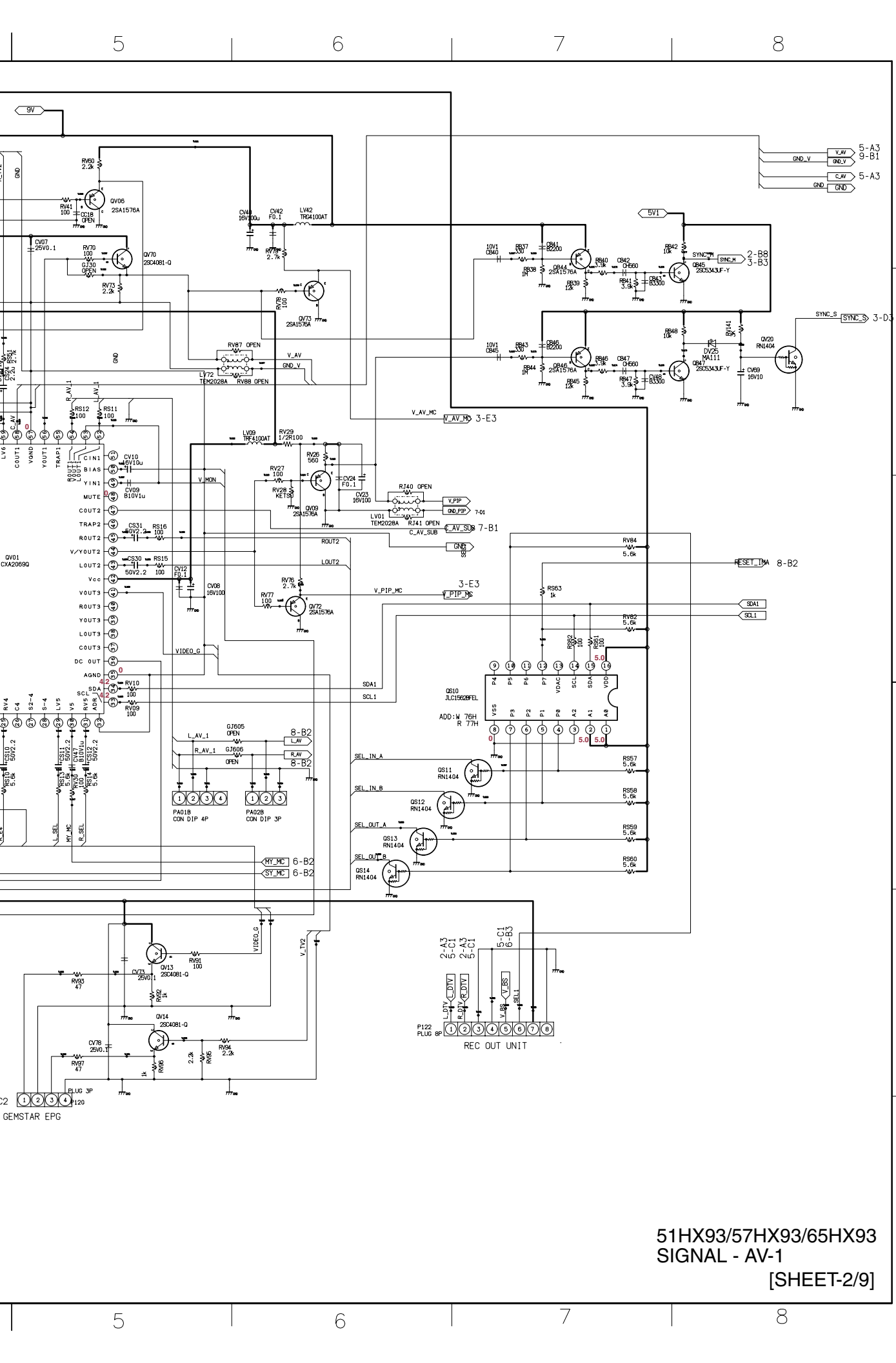

1-C2
8-B2
8-B2 GND_A
4-A1 AUDIO_VCC
2-A4
3-A7
4-B1
5-A1
7-E8
9-B1 5V2
3-E7 5V1
4-A1
8-B1
to AV
1-B2
8-B2
8-B2
GND
2-E6 A_MUTE
7-F3 L_APRO
8-B2 R_APRO
GND_A
8-B2 W_APRO
GND
2-E2 L_VAR1
2-E2 R_VAR1
2-E2 L_OUT
2-E2 R_OUT
GND
GJ602 OPEN
GJ601 OPEN
L-VAR1
Q661 2SC3326B
R661 1k
C661 50V4.7
R662 33k
R663 10k
C662 50V1.0
L_APRO
R665 22k
Q663 BA4558
R695 4.7k
R696 4.7k
REF
C665 50V0.01
C663 50V1.0
R_APRO
R-VAR1
R671 1k
C666 50V4.7
R672 33k
R673 10k
22V
R667 22k
Q664 RN2404
R674 4.7k
R675 OPEN
C667 16V10
Q662 2SC3326B
D613 MA111
D614 MA111
MUTE_E
W_AP



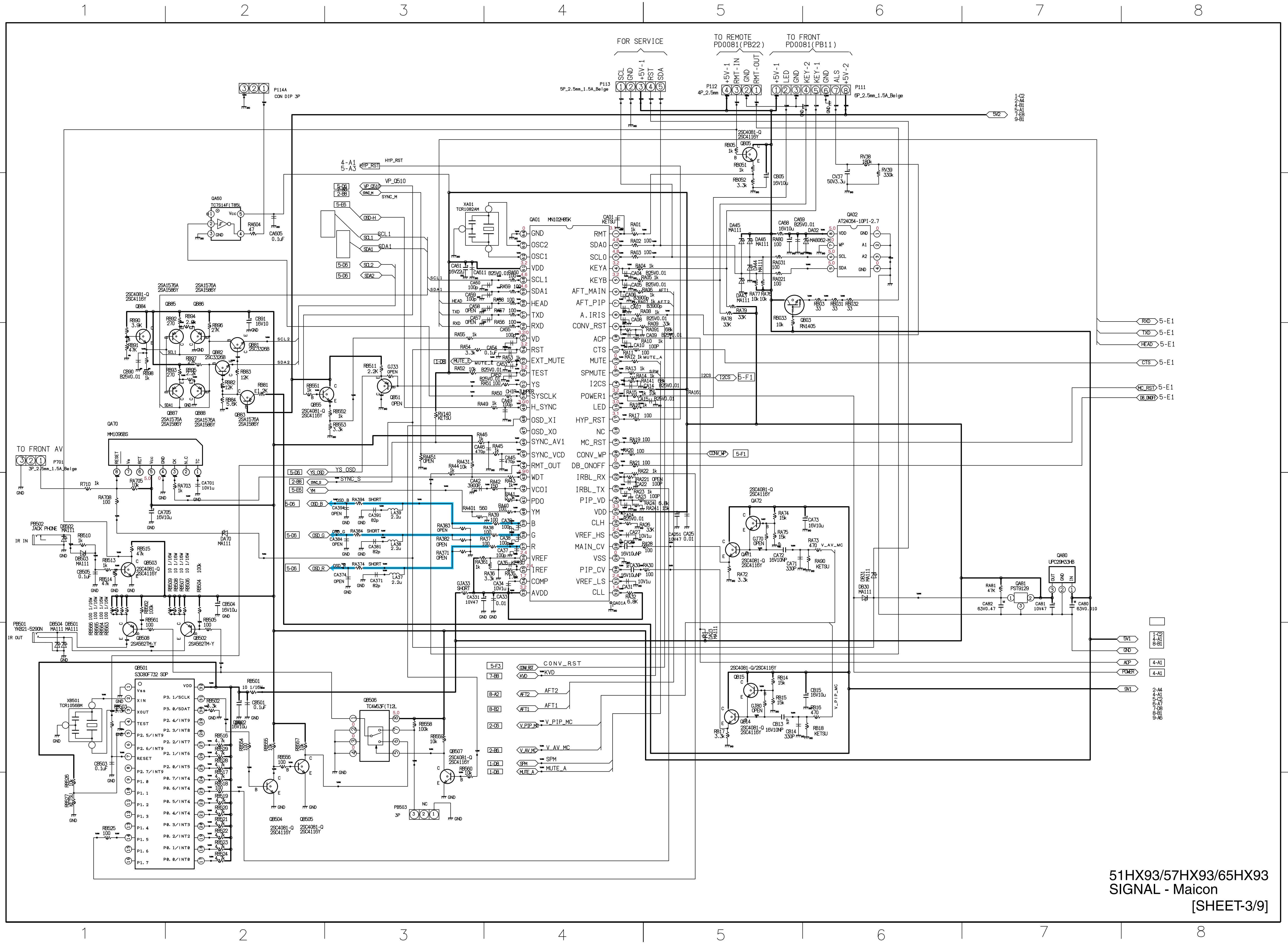
51H93/57H93/65H93
SIGNAL - Audio
[SHEET-1/9]

51HX93/57HX93/65HX93
SIGNAL - AV-1
[SHEET-2/9]


REC-OUT UNIT
P121
PLUG 5P
GJ121 SHORT
GJ122 SHORT
TVGND
V_TV
L_TV
R_TV
A_TV2
TVG
V_TV2
R_DTV
L_DTV
GJ123 OPEN
GJ124 SHORT
GJ114 OPEN
GJ115 SHORT
5V2
5V1
9V1
9V2
EXT-1
EXT-2
PV01
6P JACK
S-SW_E1
Y_E1
SC_E1
S-SW_E2
Y_E2
SC_E2
V_E1
L_E1
R_E1
V_E2
L_E2
R_E2
PV02
10P JACK
CS-2
CS-1
PR_2
PB_2
Y_2
PR_1
PB_1
Y_1
PS01 CON DIP 3P
HDMI
PV05
10P JACK
VARIABLE OUT
MONITOR OUT
DVI(HDMI-1) L
HDMI-2 L
DVI(HDMI-1) R
HDMI-2 R
C_IN
R_VARI
R_OUT
L_OUT
L_VARI
S601
2C2P
L_MONI
R_MONI
QS05 MC14052BF
QS06 MC14052BF
VDD
VEE
VSS
INH
QS03 2SC4081-Q
QS04 2SC4081-Q
QS07 2SC3326B
QS08 2SC3326B
QS09 RN2404
QV01 CXA2069
QV12 MM1505XRE
LV13 TRF4100AT
A_MUTE
GEMS
EXT-3 (FRONT)
PB60
10P_2.5mm_1.5A_Beige
LV02 TEM2028A
LV03 TEM2028A
GJ86 OPEN
GJ87 OPEN
GJ88 OPEN
GJ89 OPEN
SW_E3
C_E3
Y_E3
L_E3
R_E3
V_E3
S-SW
C
Y
GND
5V
V_MON

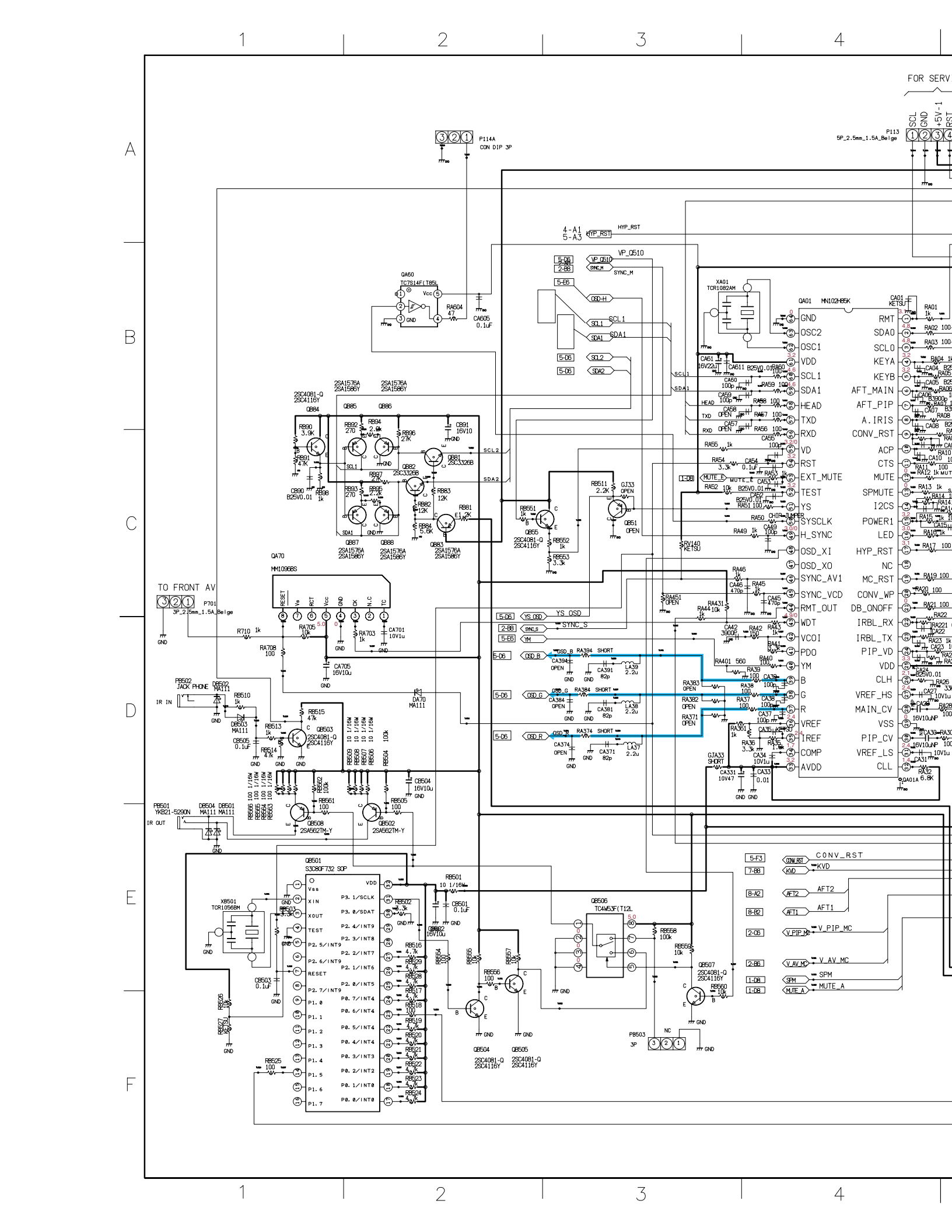


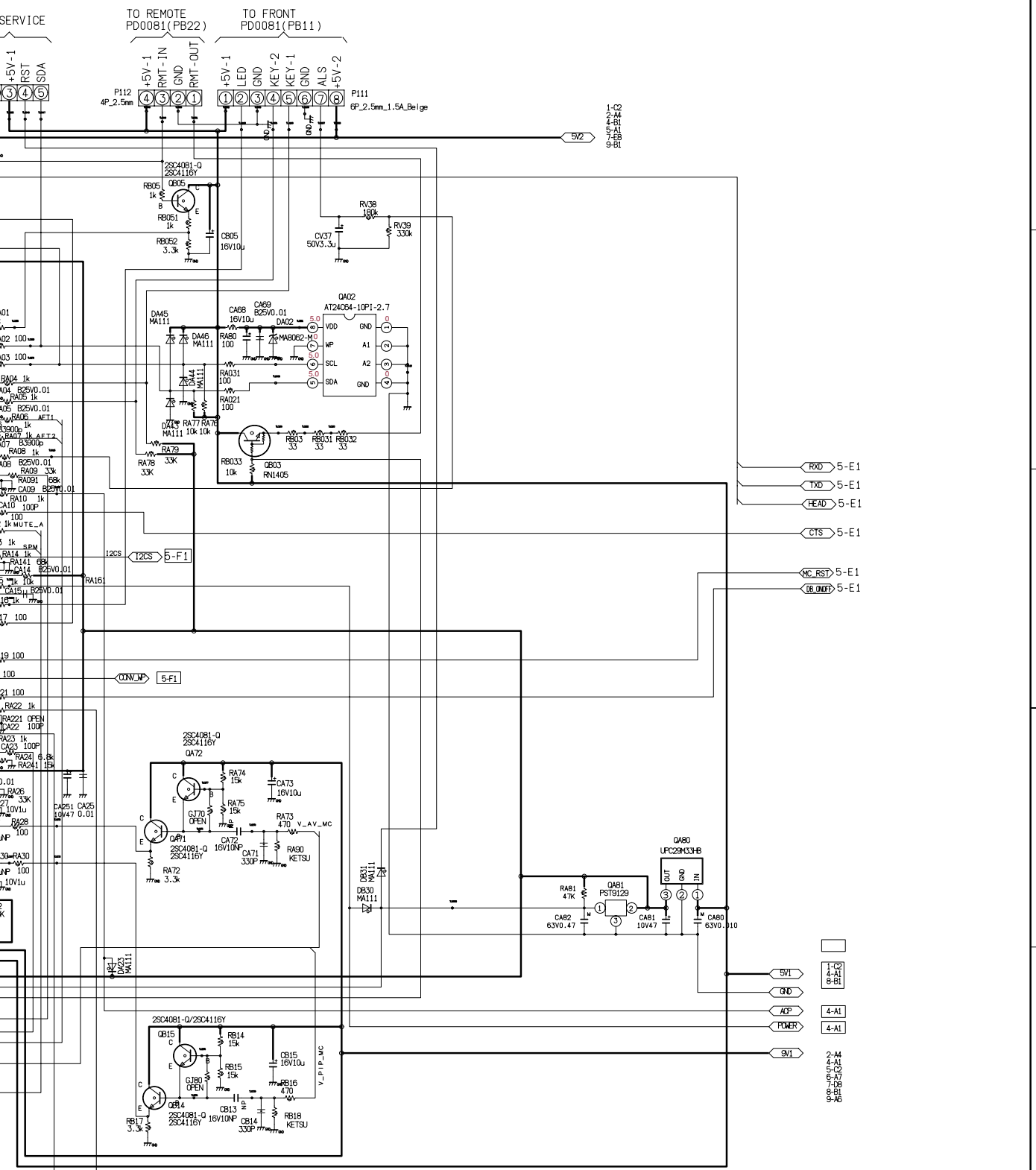
51HX93/57HX93/65HX93
SIGNAL - AV-1
[SHEET-2/9]



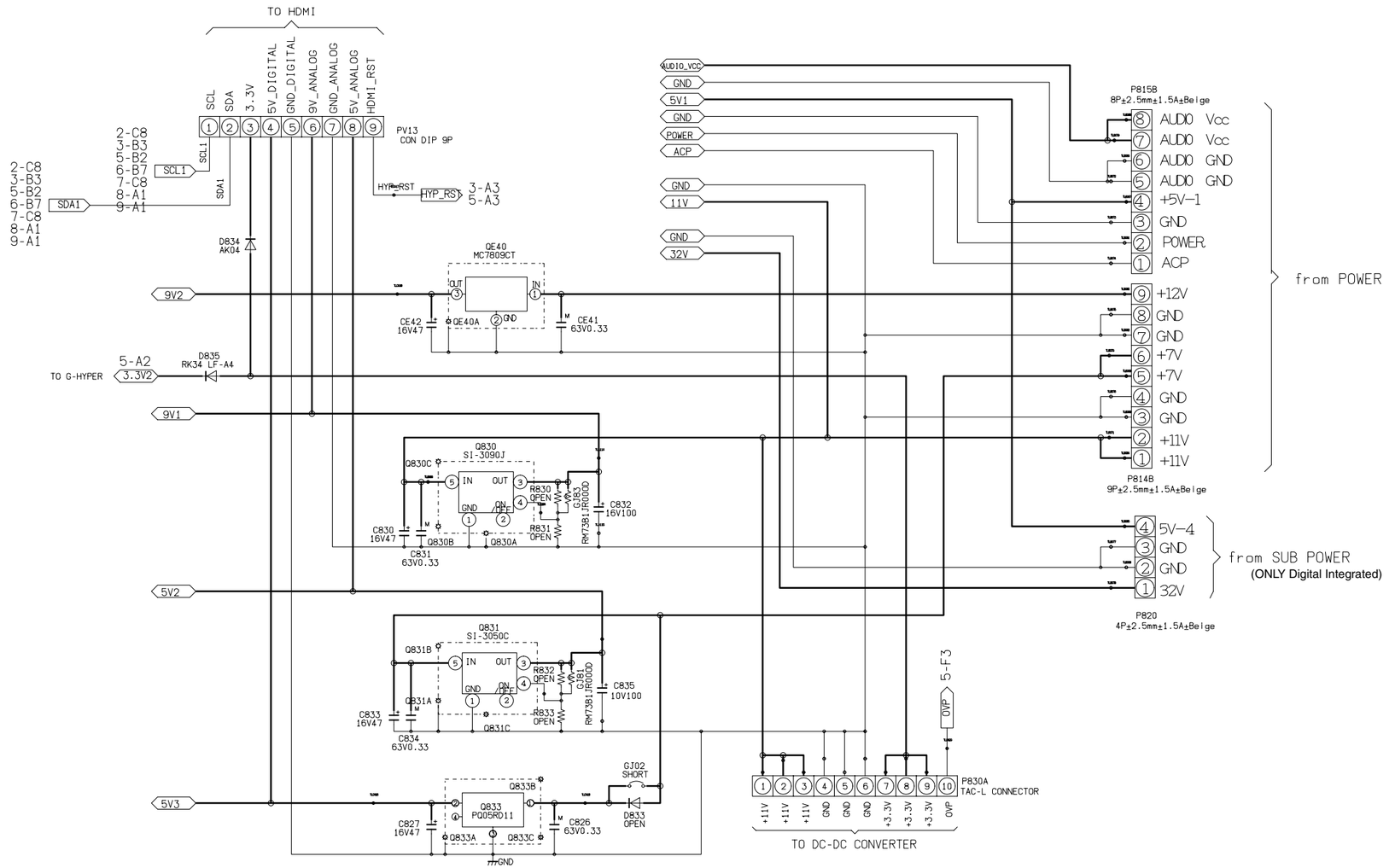
FOR SERVICE
P113 5P_2.5mm_1.5A_Belge
SCL GND +5V-1 RST SDA
TO REMOTE PD0081(PB22)
P112 4P_2.5mm
+5V-1 RMT-IN GND RMT-OUT
TO FRONT PD0081(PB11)
P111 6P_2.5mm_1.5A_Belge
+5V-1 LED GND KEY-2 KEY-1 GND ALS +5V-2
P114A CON DIP 3P
5V2
QA60 TC7S14F(T85L
QA01 MN102H85K
XA01 TCR1082AM
QA02 AT24C64-10PI-2.7
QA70 MM1096BS
RESET Vs RCT Vcc GND CK N.C TC
TO FRONT AV
P701 3P_2.5mm_1.5A_Belge
GND OSC2 OSC1 VDD SCL1 SDA1 HEAD TXD RXD VD RST EXT_MUTE TEST YS SYSCLK H_SYNC OSD_XI OSD_XO SYNC_AV1 SYNC_VCD RMT_OUT WDT VCOI PDO YM B G R VREF IREF COMP AVDD
RMT SDA0 SCL0 KEYA KEYB AFT_MAIN AFT_PIP A.IRIS CONV_RST ACP CTS MUTE SPMUTE I2CS POWER1 LED HYP_RST NC MC_RST CONV_WP DB_ONOFF IRBL_RX IRBL_TX PIP_VD VDD CLH VREF_HS MAIN_CV VSS PIP_CV VREF_LS CLL
RXD 5-E1
TXD 5-E1
HEAD 5-E1
CTS 5-E1
MC_RST 5-E1
DB_ONOFF 5-E1
I2CS 5-F1
CONV_WP 5-F1
HYP_RST 4-A1 5-A3
VP_Q510
SYNC_M
OSD-H
SCL1
SDA1
SCL2
SDA2
YS_OSD
SYNC_S
YM
OSD_B
OSD_G
OSD_R
MUTE_E
PB502 JACK PHONE
IR IN
PB501 YKB21-5290N
IR OUT
QB501 S3C80F732 SOP
XB501 TCR1056BM
QB506 TC4W53F(T12L
PB503 3P
CONV_RST
KVD
AFT2
AFT1
V_PIP_MC
V_AV_MC
SPM
MUTE_A
QA80 UPC29M33HB
QA81 PST9129
5V1
GND
ACP
POWER
9V1

51HX93/57HX93/65HX93
SIGNAL - Maicon
[SHEET-3/9]

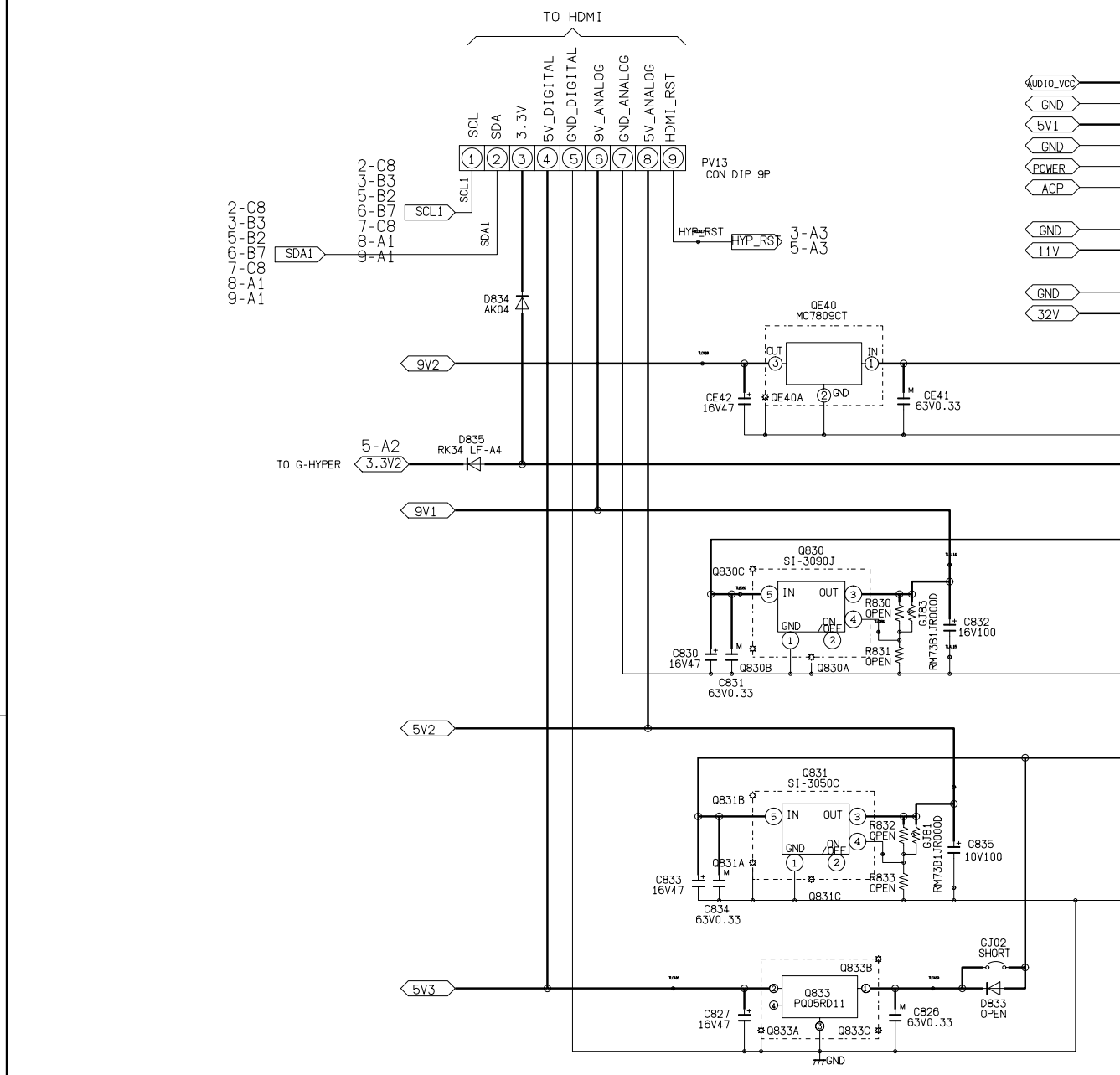

FOR SERV
P114A
CON DIP 3P
P113
5P_2.5mm_1.5A_Beige
SCL
GND
+5V-1
RST
4-A1
5-A3
HYP_RST
VP_Q510
SYNC_M
SYNC_S
OSD-H
SCL1
SDA1
SCL2
SDA2
QA60
TC7S14F(T85L
QA01
MN102H85K
XA01
TCR1082AM
GND
OSC2
OSC1
VDD
SCL1
SDA1
HEAD
TXD
RXD
VD
RST
EXT_MUTE
TEST
YS
SYSCLK
H_SYNC
OSD_XI
OSD_XO
SYNC_AV1
SYNC_VCD
RMT_OUT
WDT
VCOI
PDO
YM
B
G
R
VREF
IREF
COMP
AVDD
RMT
SDAO
SCLO
KEYA
KEYB
AFT_MAIN
AFT_PIP
A.IRIS
CONV_RST
ACP
CTS
MUTE
SPMUTE
I2CS
POWER1
LED
HYP_RST
NC
MC_RST
CONV_WP
DB_ONOFF
IRBL_RX
IRBL_TX
PIP_VD
VDD
CLH
VREF_HS
MAIN_CV
VSS
PIP_CV
VREF_LS
CLL
TO FRONT AV
P701
3P_2.5mm_1.5A_Beige
QA70
MM1096BS
RESET
Vs
RCT
Vcc
GND
CK
H.C
TC
PB502
JACK PHONE
DB502
MA111
IR IN
DB503
MA111
DA70
MA111
PB501
YKB21-52900N
DB504
MA111
DB501
MA111
IR OUT
QB501
S3C80F732 SOP
Vss
XIN
XOUT
TEST
RESET
VDD
P3.1/SCLK
P3.0/SDAT
P2.4/INT9
P2.3/INT8
P2.2/INT7
P2.1/INT6
P2.0/INT5
P0.7/INT4
P0.6/INT4
P0.5/INT4
P0.4/INT4
P0.3/INT3
P0.2/INT2
P0.1/INT0
P0.0/INT0
P2.5/INT9
P2.6/INT9
P2.7/INT9
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
XB501
TCR1056BM
QB506
TC4W53F(T12L
QB507
2SC4081-Q
2SC4116Y
QB504
2SC4081-Q
2SC4116Y
QB505
2SC4081-Q
2SC4116Y
PB503
3P
NC
CONV_RST
KVD
AFT2
AFT1
V_PIP_MC
V_AV_MC
SPM
MUTE_A

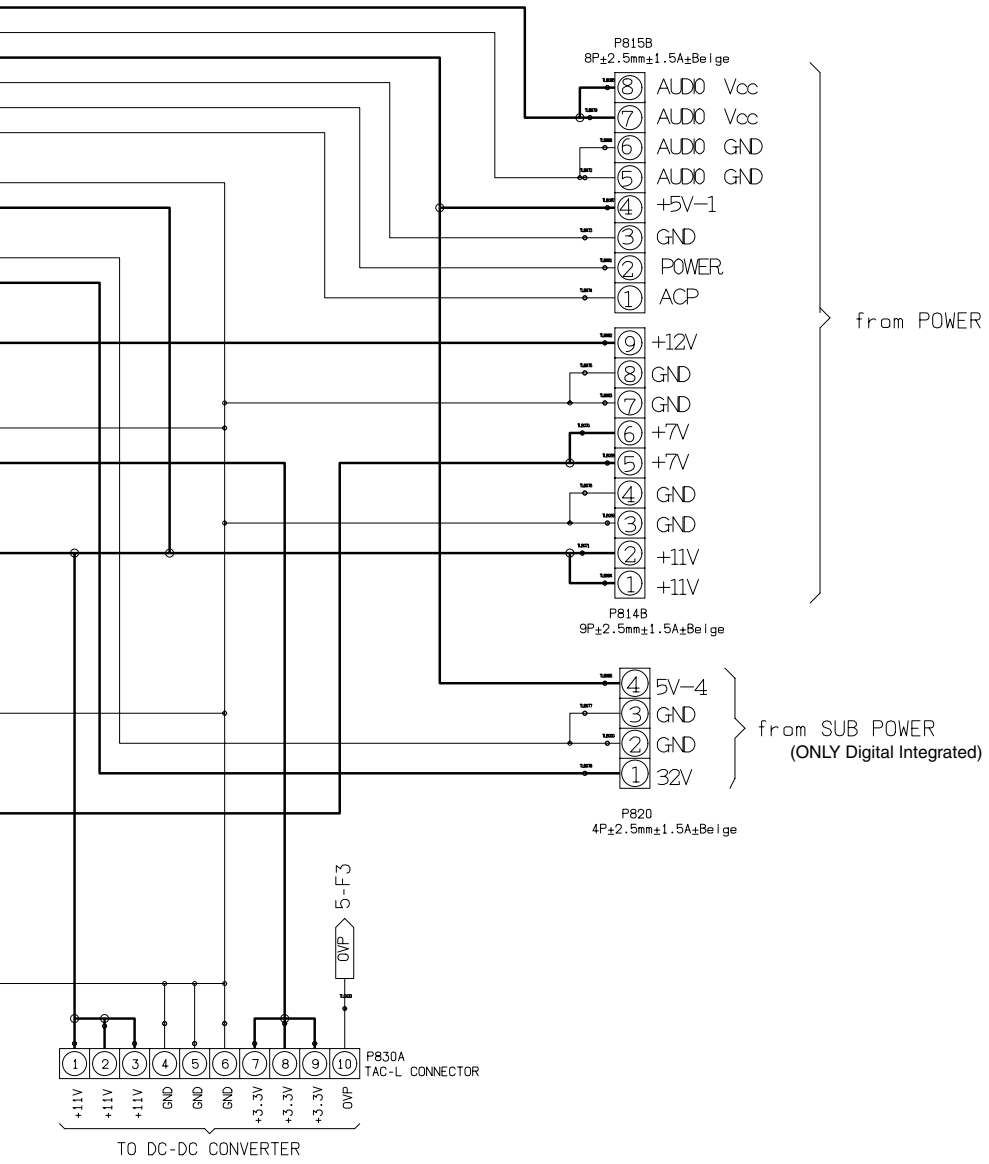


51HX93/57HX93/65HX93
SIGNAL - Maicon
[SHEET-3/9]



51HX93/57HX93/65HX93
SIGNAL - REGULATOR
[SHEET-4/9]

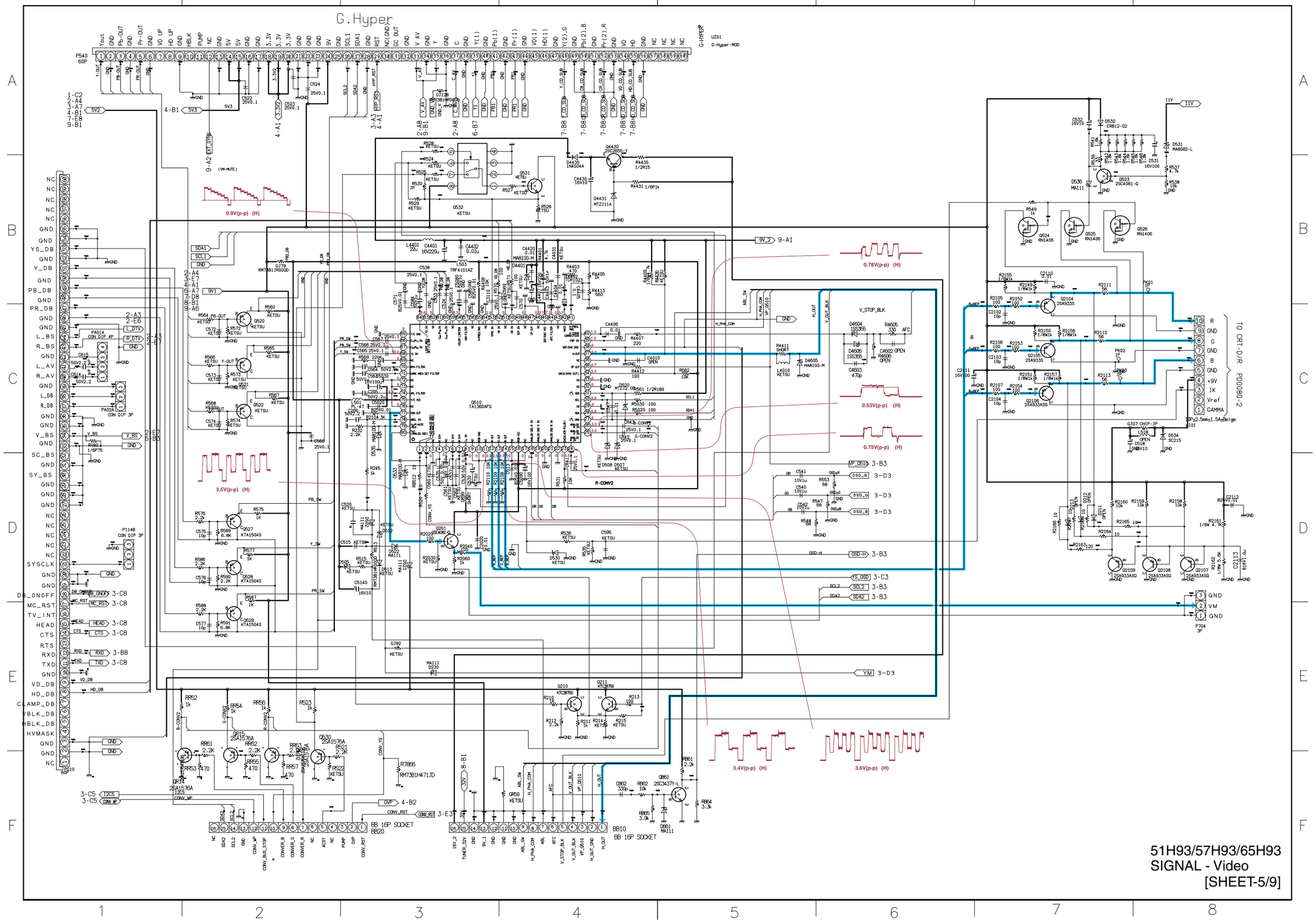

TO HDMI
SCL
SDA
3.3V
5V_DIGITAL
GND_DIGITAL
9V_ANALOG
GND_ANALOG
5V_ANALOG
HDMI_RST
PV13
CON DIP 9P
2-C8
3-B3
5-B2
6-B7
7-C8
8-A1
9-A1
SCL1
SDA1
HYP_RST
3-A3
5-A3
D834
AK04
QE40
MC7809CT
OUT
IN
GND
9V2
CE42
16V47
QE40A
CE41
63V0.33
5-A2
TO G-HYPER
3.3V2
D835
RK34 LF-A4
9V1
Q830
SI-3090J
Q830C
IN
OUT
ON/OFF
R830
OPEN
GJ83
RM73B1JR000D
C832
16V100
C830
16V47
Q830B
Q830A
R831
OPEN
C831
63V0.33
5V2
Q831
SI-3050C
Q831B
R832
OPEN
GJ81
C835
10V100
Q831A
C833
16V47
R833
OPEN
Q831C
C834
63V0.33
5V3
GJ02
SHORT
Q833B
Q833
PQ05RD11
D833
OPEN
C827
16V47
Q833A
Q833C
C826
63V0.33
GND
AUDIO_VCC
GND
5V1
GND
POWER
ACP
GND
11V
GND
32V

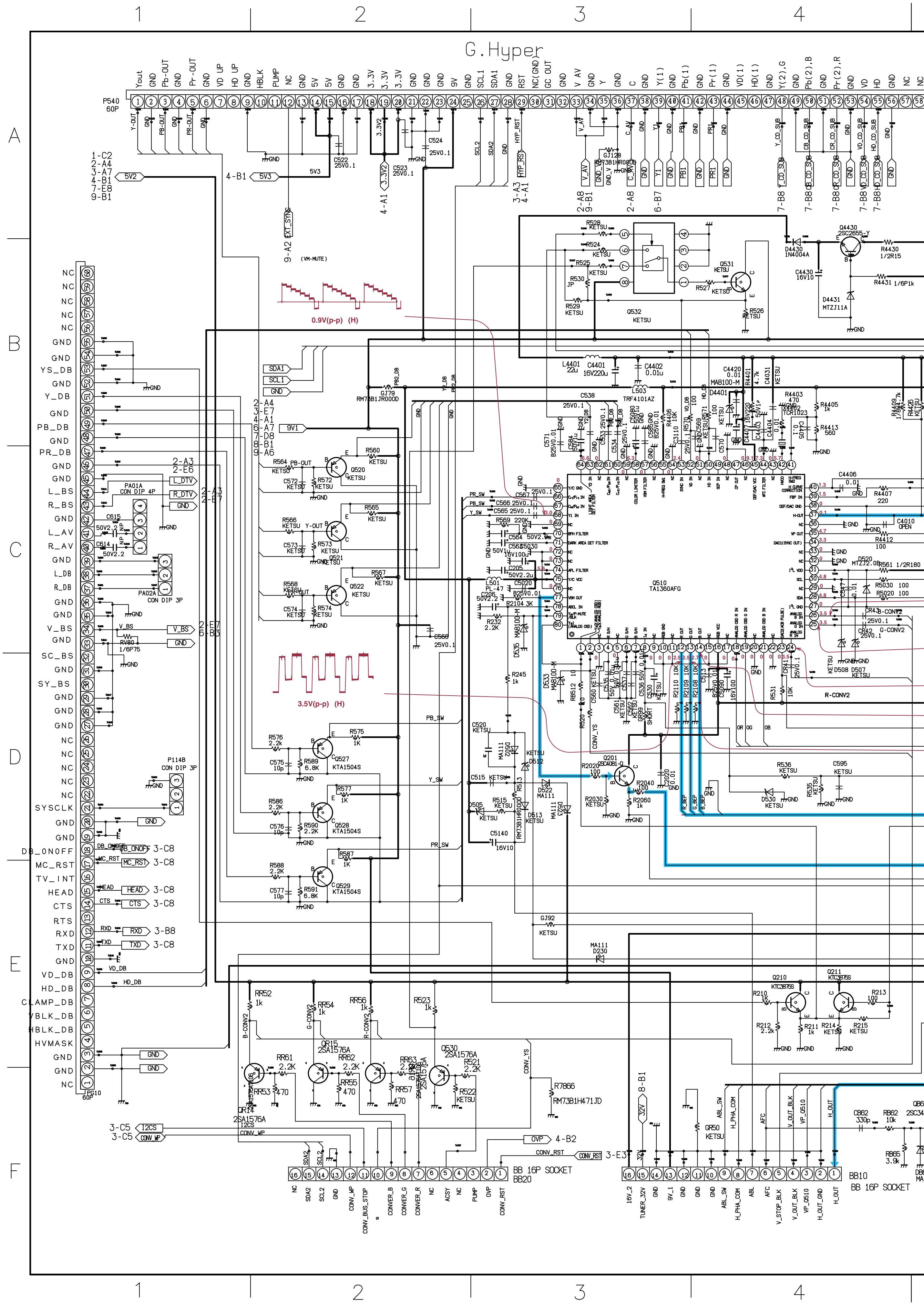


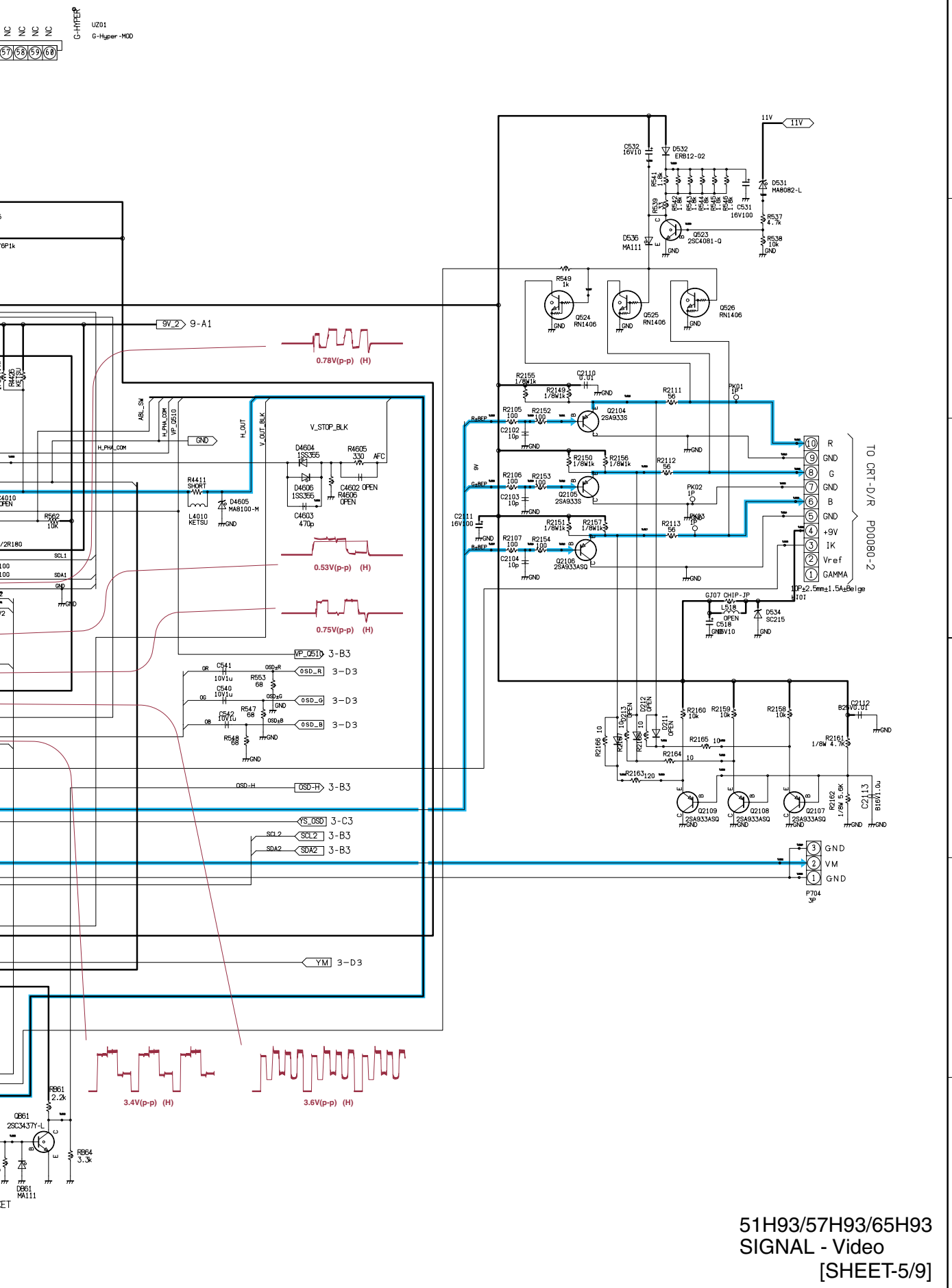
A

B

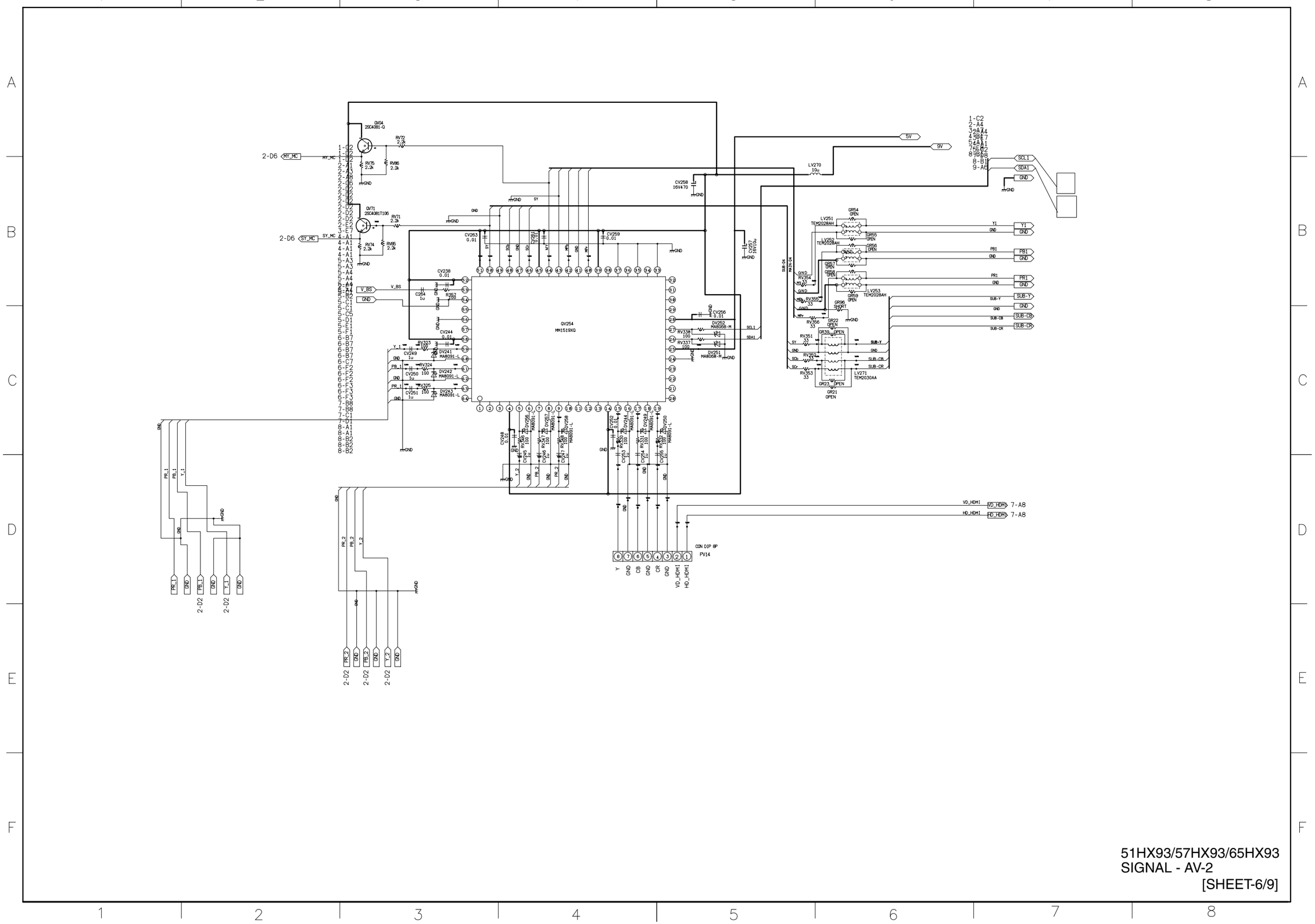
51HX93/57HX93/65HX93
SIGNAL - REGULATOR
[SHEET-4/9]


G.Hyper
P540 60P
UZ01 G-Hyper-MOD
TO CRT-D/R PD0080-2
51H93/57H93/65H93
SIGNAL - Video
[SHEET-5/9]

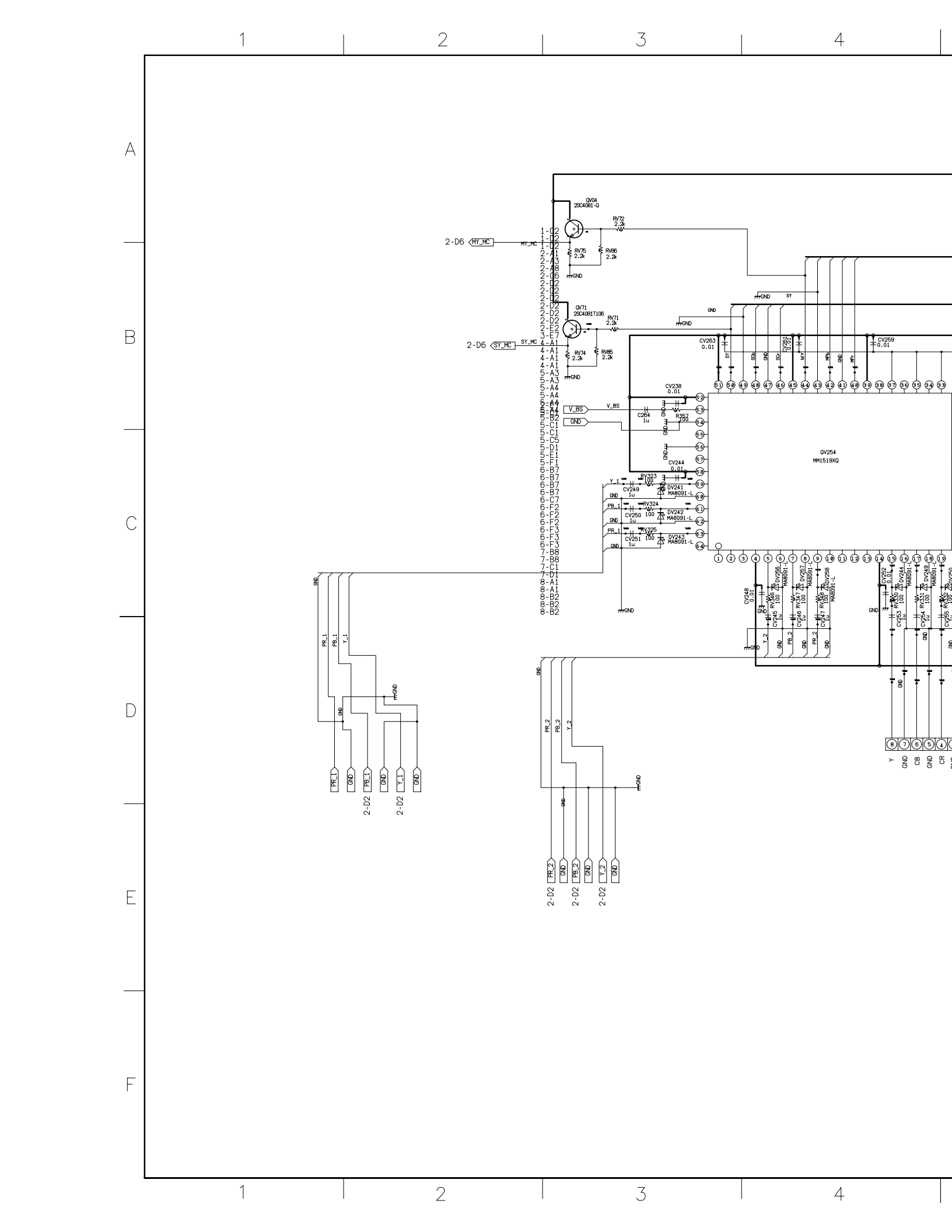

G.Hyper
P540
60P
Yout
GND
Pb-OUT
Pr-OUT
VD UP
HD UP
HBLK
PUMP
NC
5V
3.3V
9V
SCL1
SDA1
RST
NC(GND)
GC OUT
V AV
Y
C
Y(1)
Pb(1)
Pr(1)
VD(1)
HD(1)
Y(2),G
Pb(2),B
Pr(2),R
VD
HD
1-C2
2-A4
3-A7
4-B1
7-E8
9-B1
5V2
5V3
3.3V2
EXT_SYNC
9-A2
(VM-MUTE)
C522
25V0.1
C523
C524
HYP_RST
3-A3
4-A1
V_AV
GND_V
GJ128
RM73B1HR000D
C_AV
Y1
PB1
PR1
Y_CD_SUB
CB_CD_SUB
CR_CD_SUB
VD_CD_SUB
HD_CD_SUB
2-A8
6-B7
7-B8
0.9V(p-p) (H)
3.5V(p-p) (H)
R528
R524
R525
R530
R529
R527
R526
Q531
Q532
KETSU
D4430
1N4004A
Q4430
2SC2655-Y
R4430
1/2R15
C4430
16V10
R4431
1/6P1k
D4431
MTZJ11A
L4401
22u
C4401
16V220u
C4402
0.01u
L503
TRF4101AZ
C4420
MA8100-M
D4401
R4401
4.7k
C4031
R4403
470
X4402
TCR1023
R4405
1k
R4413
560
R4409
R4426
C538
C571
C584
C533
C534
C5080
C585
R4406
10K
R570
C3110
R571
C569
C570
C4407
C4403
C4404
C4405
Q510
TA1360AFG
C4406
0.01
R4407
220
C4010
OPEN
R4412
100
D520
MTZJ2.0B
R561
1/2R180
R5030
R5020
C547
CR43
B-CONV2
CR42
G-CONV2
D508
D507
R-CONV2
R531
10K
C567
C566
C565
R569
220K
C564
50V2.2
C563
C5030
16V100u
C205
L501
PL-47
C5020
C206
R2104 3K
R232
2.2K
D535
R245
1k
D533
RB512
R520
C560
C535
C537
C561
C562
C536
GR99
SHORT
C530
R2110
R2109
R2108
C513
C5090
CONV_YS
Q201
2SC4081-Q
R2020
R2030
R2040
R2060
C2020
R_BEP
G_BEP
B_BEP
R536
C595
R535
D530
C520
D502
D512
MA111
C515
D522
D505
R515
R513
D513
D523
C5140
16V10
RM73B1HR000D
PB_SW
Y_SW
PR_SW
GJ92
D230
SDA1
SCL1
2-E7
9V1
R560
R564
Q520
C572
R572
R565
R566
Y-OUT
Q521
C573
R573
R567
R568
PR-OUT
Q522
C574
R574
C568
R575
1K
R576
2.2k
Q527
KTA1504S
C575
10p
R589
6.8K
R577
R586
Q528
C576
R590
R587
R588
Q529
C577
R591
GJ79
RM73B1JR000D
PB2_DB
Y2_DB
NC
YS_DB
Y_DB
PB_DB
PR_DB
L_BS
R_BS
L_AV
R_AV
L_DB
R_DB
V_BS
SC_BS
SY_BS
SYSCLK
DB_ONOFF
MC_RST
TV_INT
HEAD
CTS
RTS
RXD
TXD
VD_DB
HD_DB
CLAMP_DB
VBLK_DB
HBLK_DB
HVMASK
PG10
60P
2-A3
2-E6
PA01A
CON DIP 4P
L_DTV
R_DTV
C615
C614
50V2.2
PA02A
CON DIP 3P
RV80
1/6P75
6-B3
P114B
CON DIP 3P
3-C8
3-B8
RR52
1k
RR54
RR56
R523
B-CONV2
G-CONV2
R-CONV2
QR14
2SA1576A
QR15
RR61
2.2K
RR62
RR63
RR53
470
RR55
RR57
Q530
R521
R522
R7866
RM73B1H471JD
3-C5
I2CS
CONV_WP
OVP
4-B2
CONV_RST
3-E3
BB 16P SOCKET
BB20
SDA2
SCL2
CONV_BUS_STOP
CONVER_B
CONVER_G
CONVER_R
ACSY
32V
8-B1
GR50
ABL_SW
H_PHA_COM
AFC
V_OUT_BLK
VP_Q510
H_OUT
16V_2
TUNER_32V
9V_1
ABL
V_STOP_BLK
H_OUT_GND
BB10
Q210
KTC3875S
Q211
R210
R211
R212
R213
R214
R215
CB62
330p
RB62
10k
RB65
3.9k

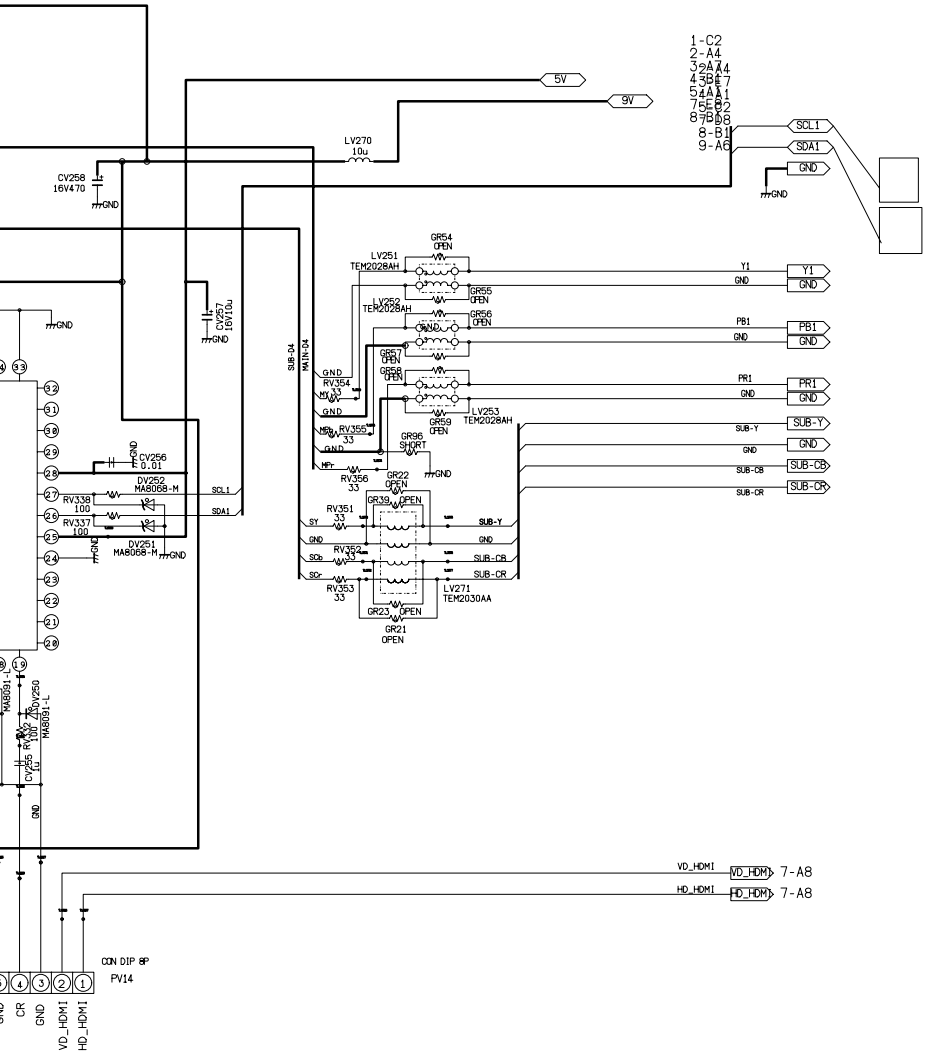


51H93/57H93/65H93
SIGNAL - Video
[SHEET-5/9]



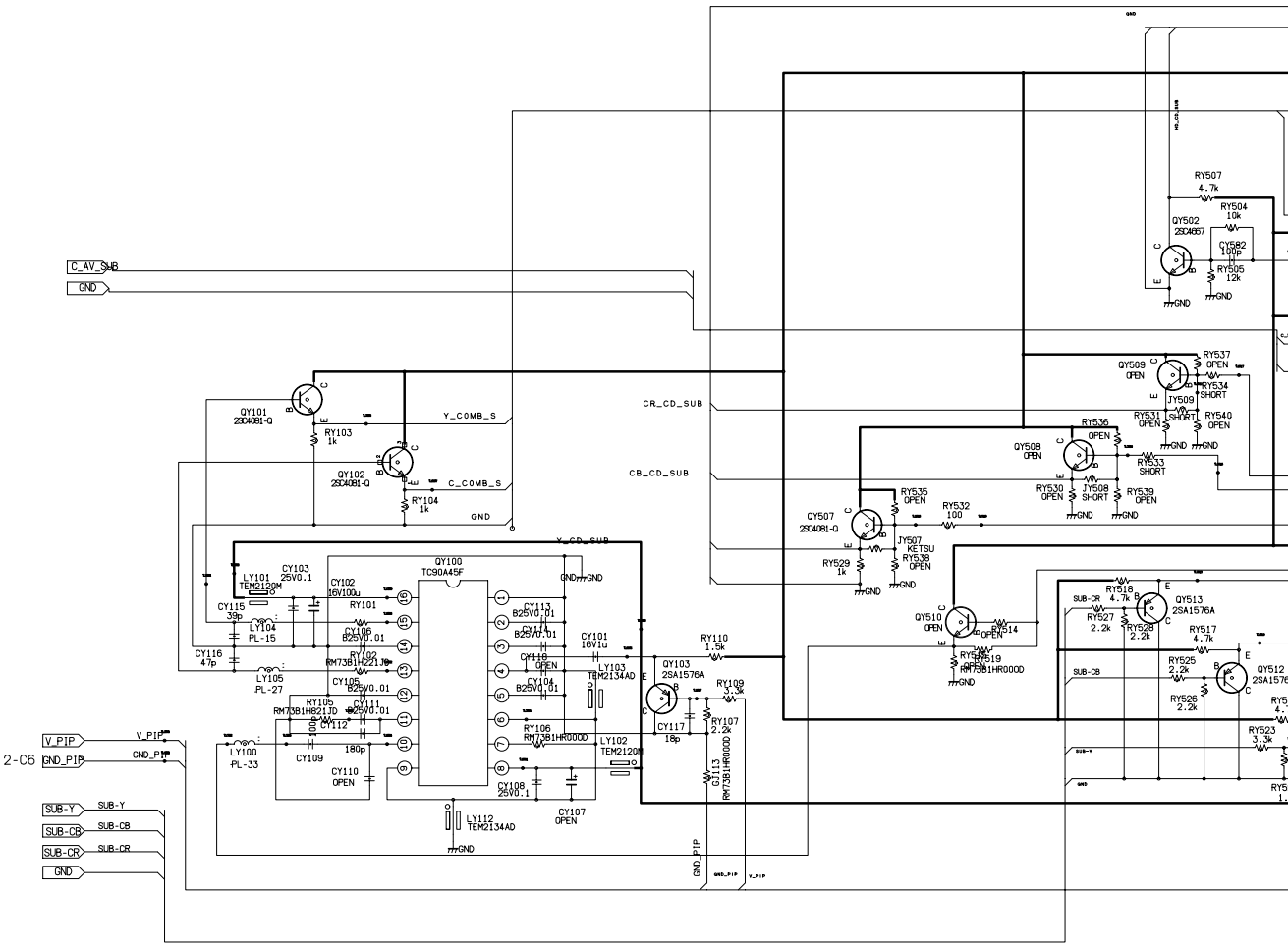
51HX93/57HX93/65HX93
SIGNAL - AV-2
[SHEET-6/9]

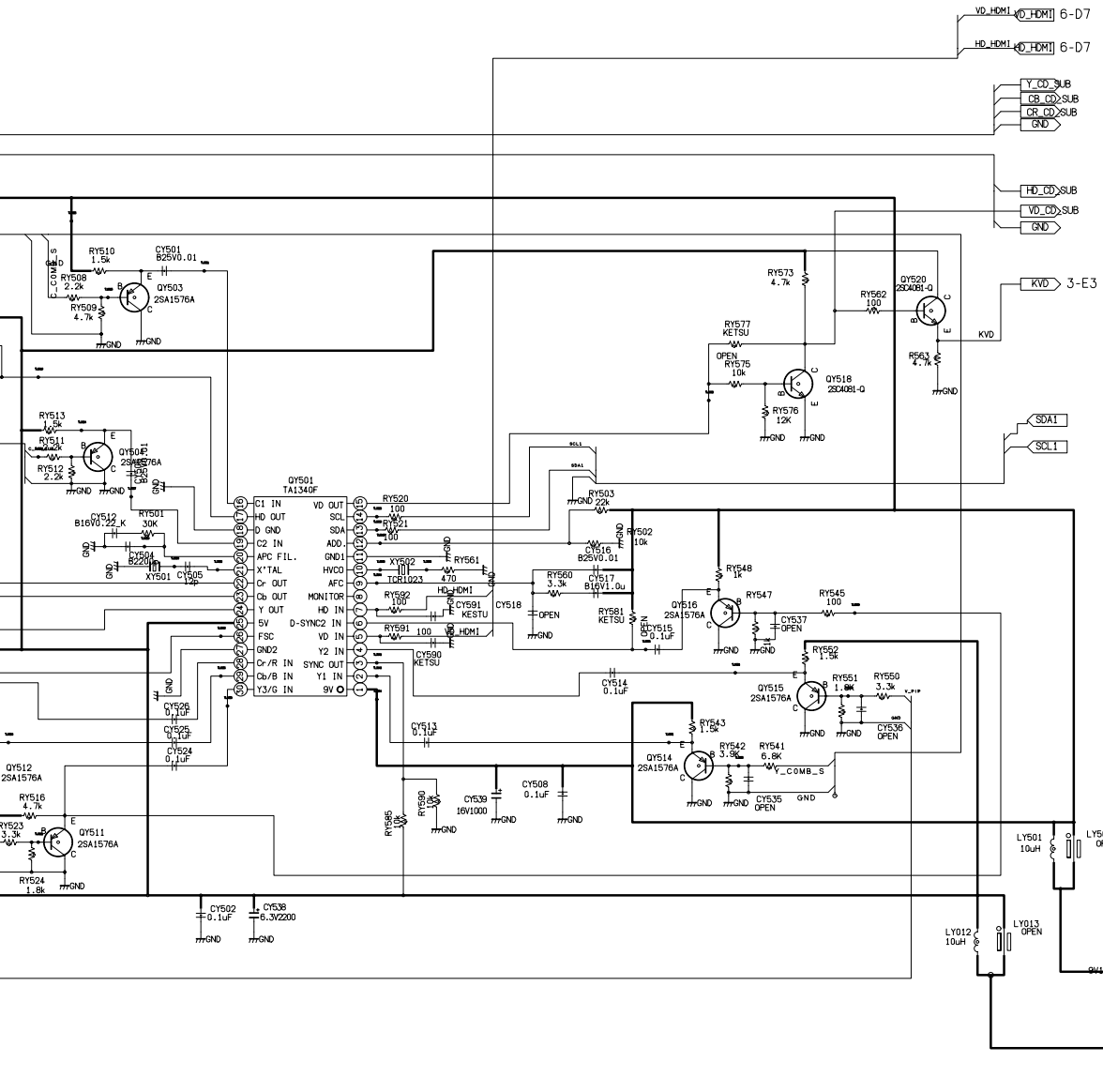

QV04
2SC4081-Q
RV72
2.2k
RV75
2.2k
RV86
2.2k
QV71
2SC4081T106
RV71
2.2k
RV74
2.2k
RV85
2.2k
MY_MC
SY_MC
V_BS
C264
1u
R357
100
CV238
0.01
CV244
0.01
CV263
0.01
CV259
0.01
QV254
MM1519XQ
RV323
100
RV324
100
RV325
100
CV249
1u
CV250
1u
CV251
1u
DV241
MA8091-L
DV242
MA8091-L
DV243
MA8091-L
CV248
0.01
CV252
0.01
PR_1
PB_1
Y_1
PR_2
PB_2
Y_2
GND
2-D2
2-D6
Y
CB
CR



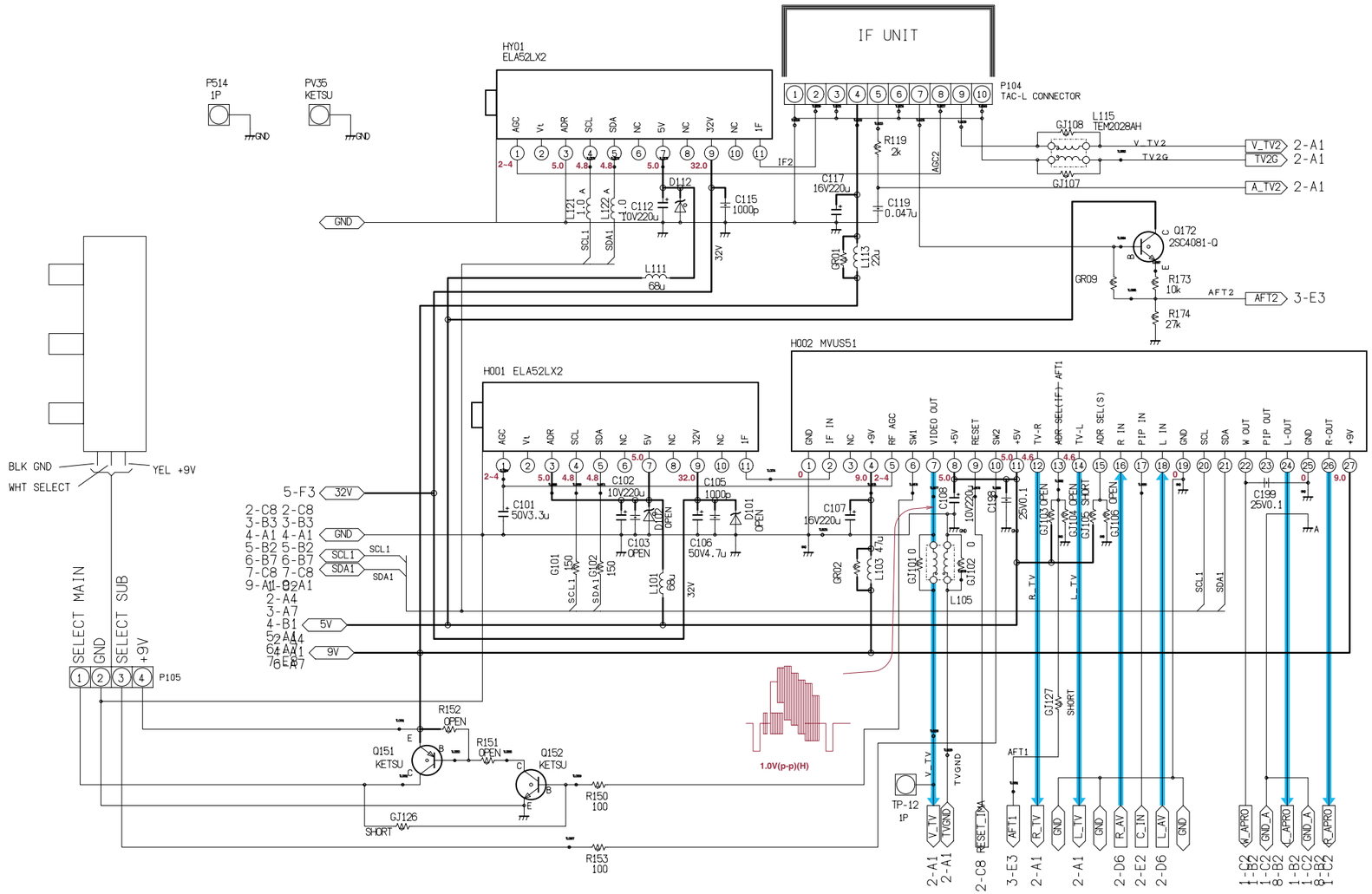
51HX93/57HX93/65HX93
SIGNAL - AV-2
[SHEET-6/9]

51HX93/57HX93/65HX93
SIGNAL - AV-3
[SHEET-7/9]

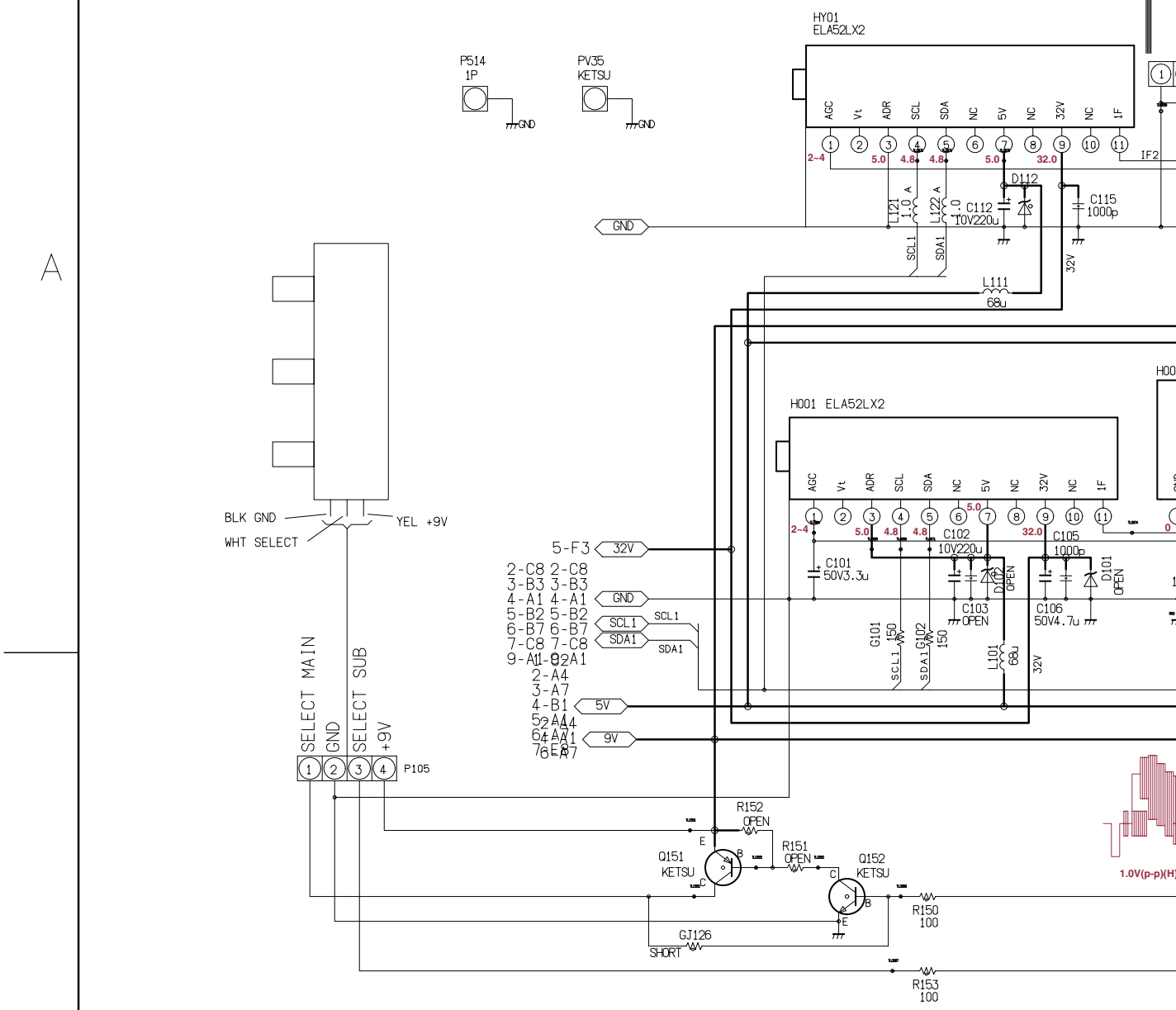

C_AV_SUB
GND
QY101 2SC4081-Q
RY103 1k
Y_COMB_S
QY102 2SC4081-Q
RY104 1k
C_COMB_S
GND
CR_CD_SUB
CB_CD_SUB
Y_CD_SUB
QY100 TC90A45F
LY101 TEM2120M
CY103 25V0.1
CY102 16V100u
RY101
CY115 39p
LY104 PL-15
CY116 47p
LY105 PL-27
CY106 B25V0.01
RY102 RM73B1H221J
CY105 B25V0.01
RY105 RM73B1H821J
CY111 B25V0.01
CY112 100p
CY109
180p
CY110 OPEN
LY100 PL-33
V_PIP
GND_PIP
2-C6
SUB-Y
SUB-CB
SUB-CR
GND
CY113 B25V0.01
CY114 B25V0.01
CY118 OPEN
CY104 B25V0.01
CY101 16V1u
LY103 TEM2134AD
QY103 2SA1576A
RY110 1.5k
RY109 3.3k
CY117 18p
RY107 2.2
CY113 RM73B1HR000D
RY106 RM73B1HR000D
LY102 TEM2120M
CY108 25V0.1
CY107 OPEN
LY112 TEM2134AD
GND_PIP
V_PIP
RY507 4.7k
RY504 10k
QY502 2SC4057
CY582 100P
RY505 12k
QY509 OPEN
RY537 OPEN
RY534 SHORT
JY509
RY531 OPEN
RY540 OPEN
RY536 OPEN
QY508 OPEN
RY533 SHORT
RY530 OPEN
JY508 SHORT
RY539 OPEN
QY507 2SC4081-Q
RY535 OPEN
RY532 100
JY507 KETSU
RY538 OPEN
RY529 1k
QY510 OPEN
RY514 OPEN
RY519 RM73B1HR000D
RY518 4.7k
QY513 2SA1576A
RY527 2.2k
RY528 2.2k
RY517 4.7k
RY525 2.2k
QY512 2SA1576A
RY526 2.2k
RY523 3.3k

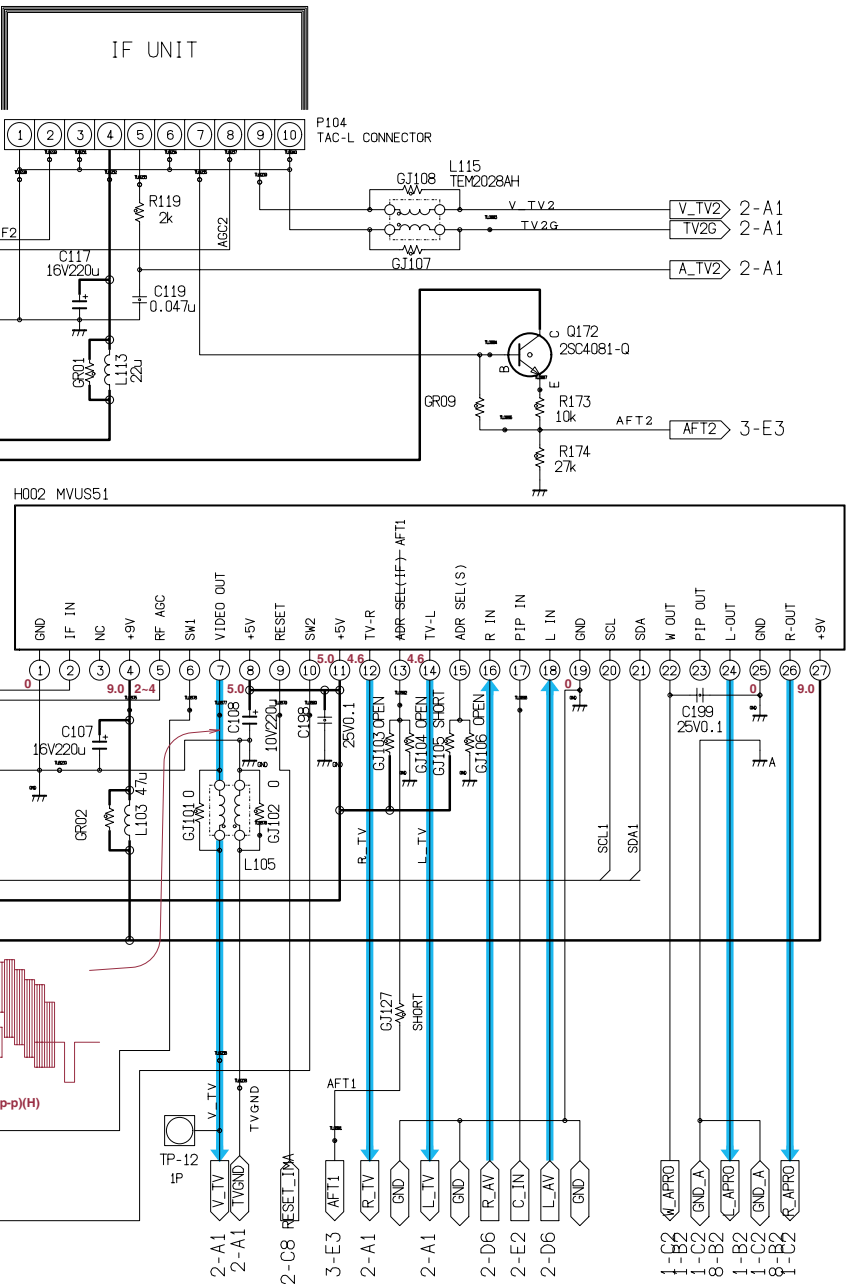


51HX93/57HX93/65HX93
SIGNAL - AV-3
[SHEET-7/9]

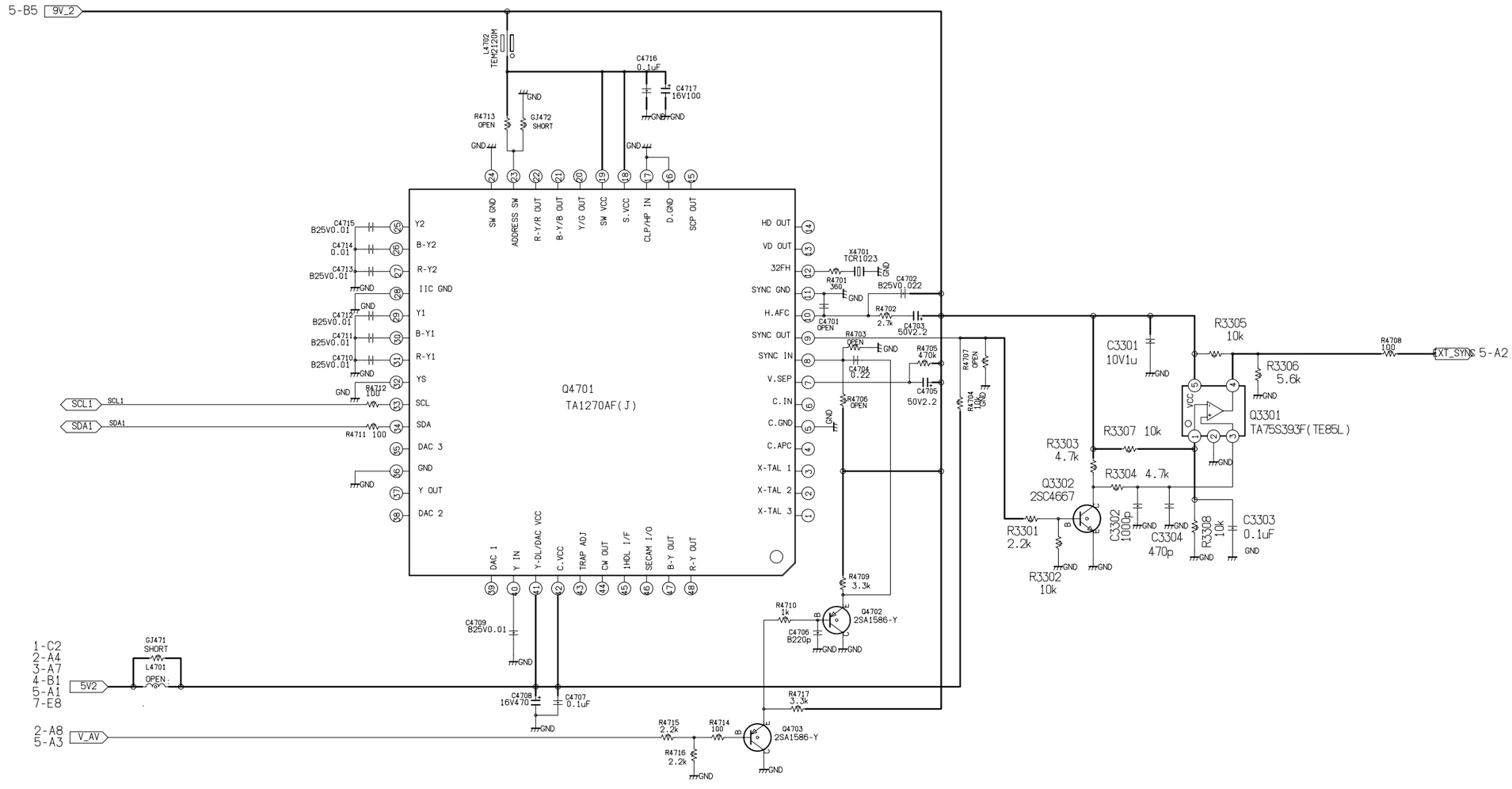


51H93/57H93/65H93
SIGNAL - IF
[SHEET-8/9]

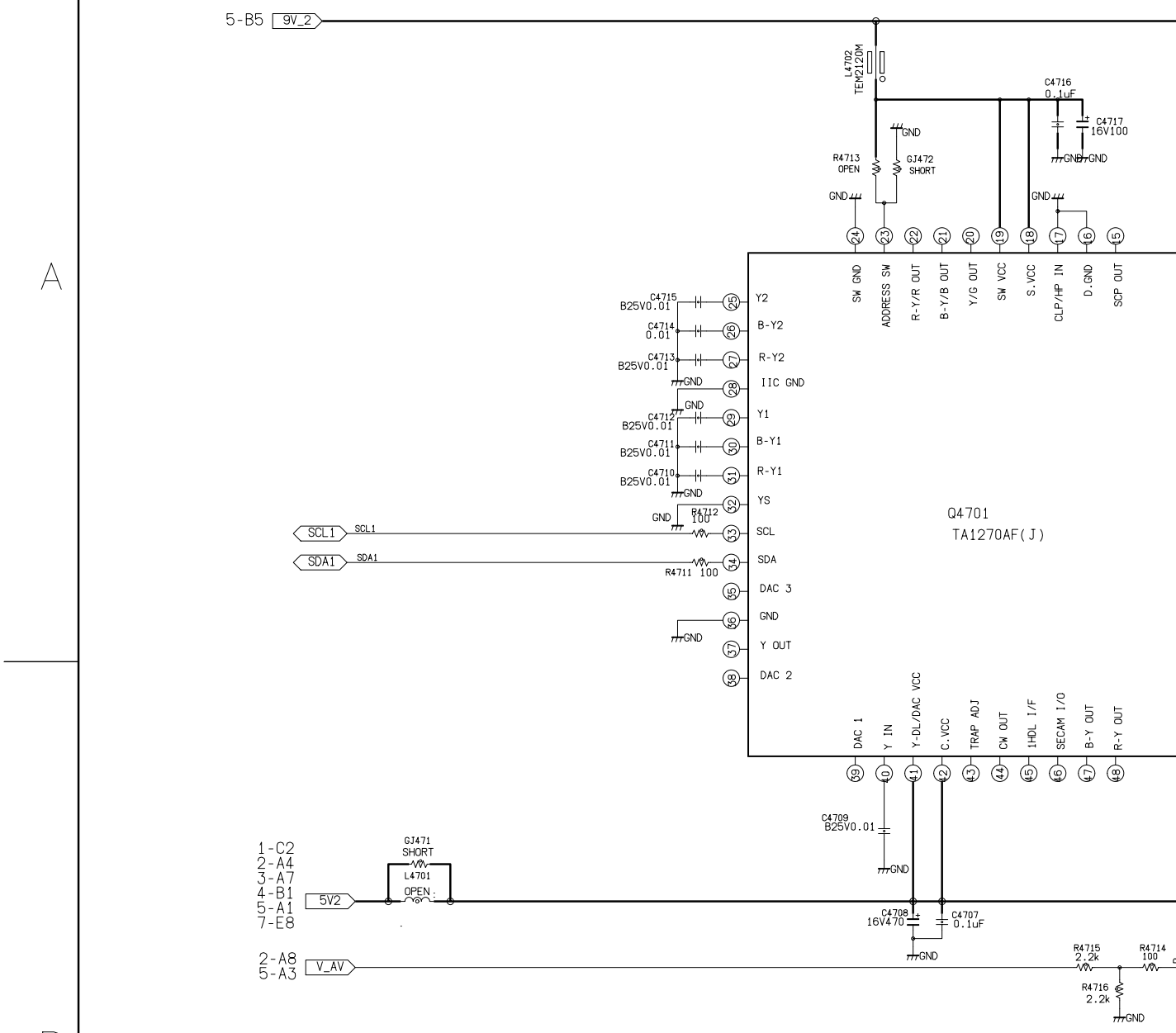

HY01
ELA52LX2
AGC
Vt
ADR
SCL
SDA
NC
5V
NC
32V
NC
1F
P514
1P
PV35
KETSU
GND
D112
C115
1000p
C112
10V220u
L121
1.0 A
L122
1.0 A
SCL1
SDA1
32V
L111
68u
H001 ELA52LX2
C101
50V3.3u
C102
10V220u
C103
OPEN
C105
1000p
C106
50V4.7u
D101
OPEN
G101
150
G102
150
L101
68u
BLK GND
WHT SELECT
YEL +9V
SELECT MAIN
GND
SELECT SUB
+9V
P105
5-F3
2-C8
3-B3
4-A1
5-B2
6-B7
7-C8
9-A1
2-A4
3-A7
4-B1
5-A4
6-A1
7-E8
9-A7
5V
9V
R152
OPEN
R151
OPEN
Q151
KETSU
Q152
KETSU
R150
100
GJ126
SHORT
R153
100
1.0V(p-p)(H)

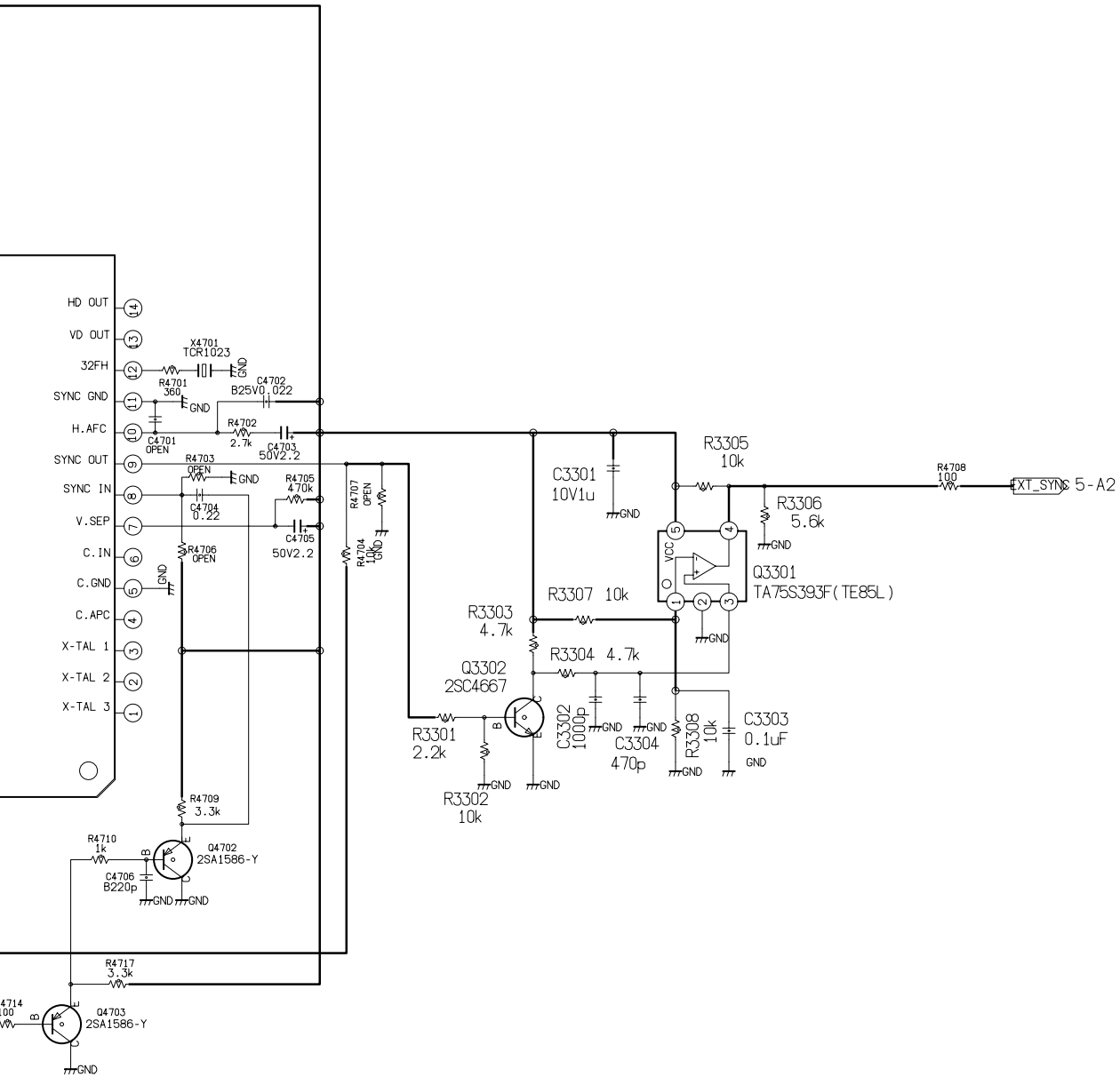


51H93/57H93/65H93
SIGNAL - IF
[SHEET-8/9]

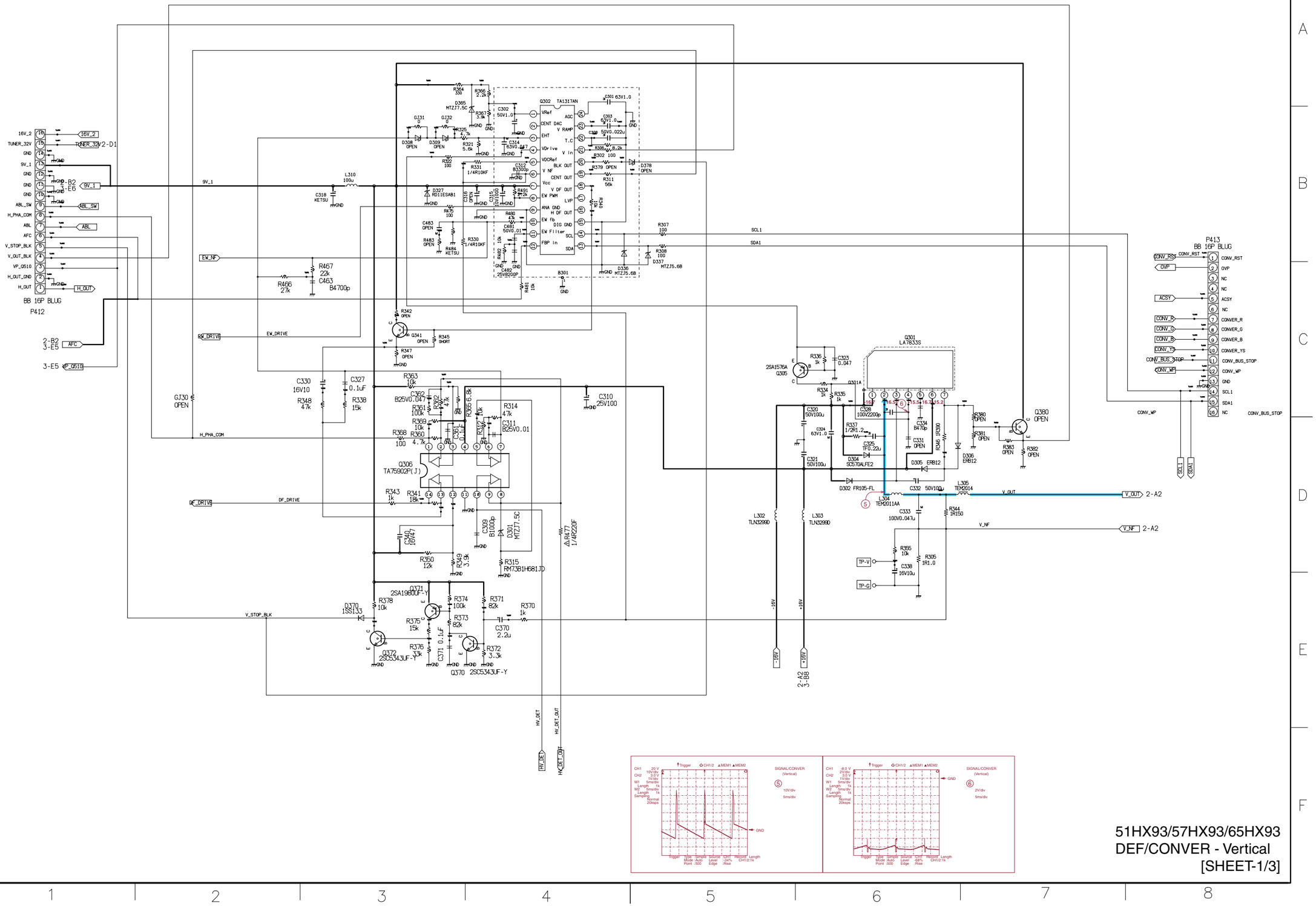


51HX93/57HX93/65HX93
SIGNAL - SYNC OUT
[SHEET-9/9]

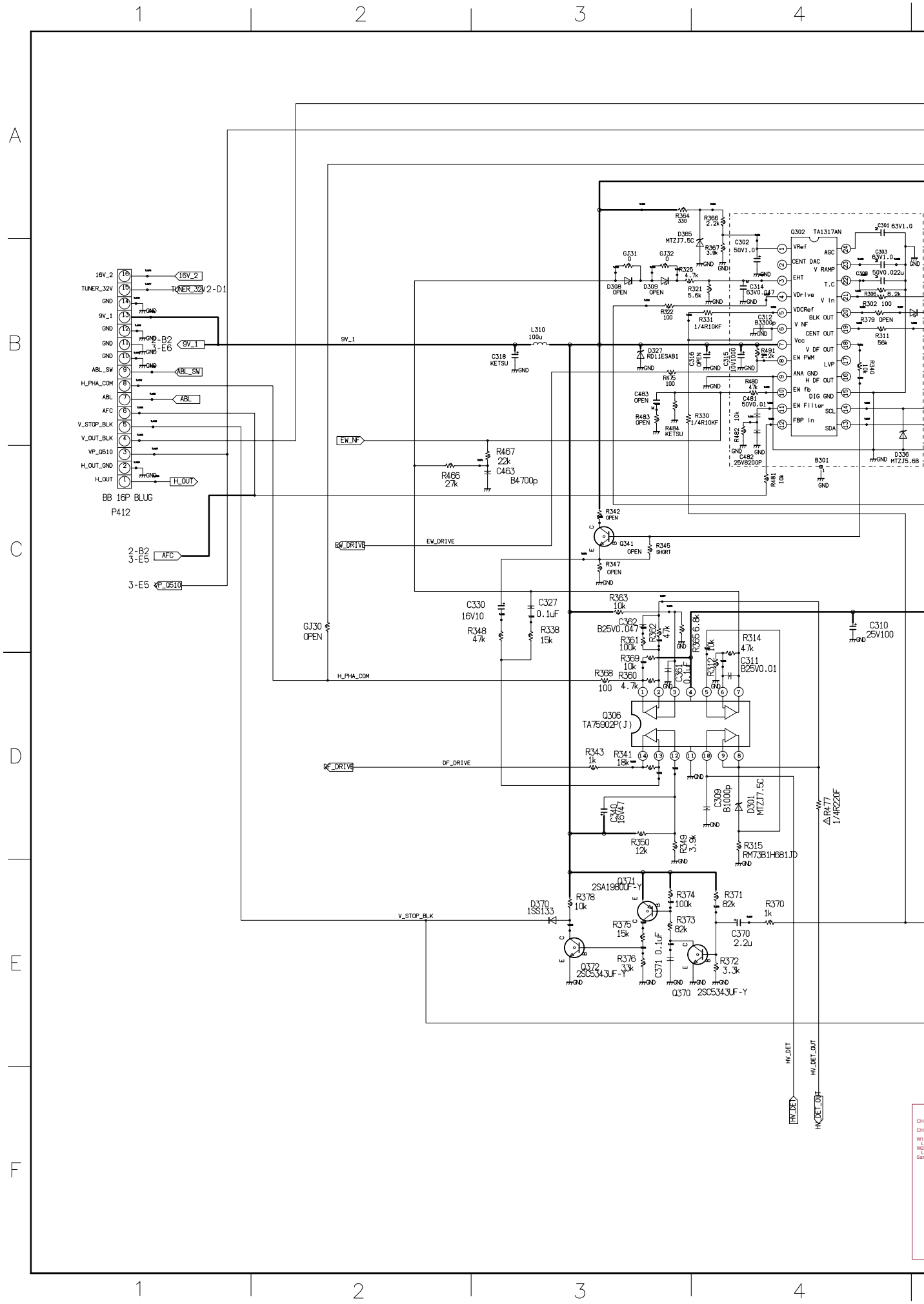

5-B5
9V_2
L4702
TEM2120M
C4716
0.1uF
C4717
16V100
GND
R4713
OPEN
GJ472
SHORT
SW GND
ADDRESS SW
R-Y/R OUT
B-Y/B OUT
Y/G OUT
SW VCC
S.VCC
CLP/HP IN
D.GND
SCP OUT
C4715
B25V0.01
C4714
0.01
C4713
B25V0.01
C4712
B25V0.01
C4711
B25V0.01
C4710
B25V0.01
R4712
100
R4711
100
Y2
B-Y2
R-Y2
IIC GND
Y1
B-Y1
R-Y1
YS
SCL
SDA
DAC 3
GND
Y OUT
DAC 2
SCL1
SDA1
Q4701
TA1270AF(J)
DAC 1
Y IN
Y-DL/DAC VCC
C.VCC
TRAP ADJ
CW OUT
IHDL I/F
SECAM I/O
B-Y OUT
R-Y OUT
C4709
B25V0.01
1-C2
2-A4
3-A7
4-B1
5-A1
7-E8
GJ471
SHORT
L4701
OPEN
5V2
C4708
16V470
C4707
0.1uF
2-A8
5-A3
V_AV
R4715
2.2k
R4714
100
R4716
2.2k

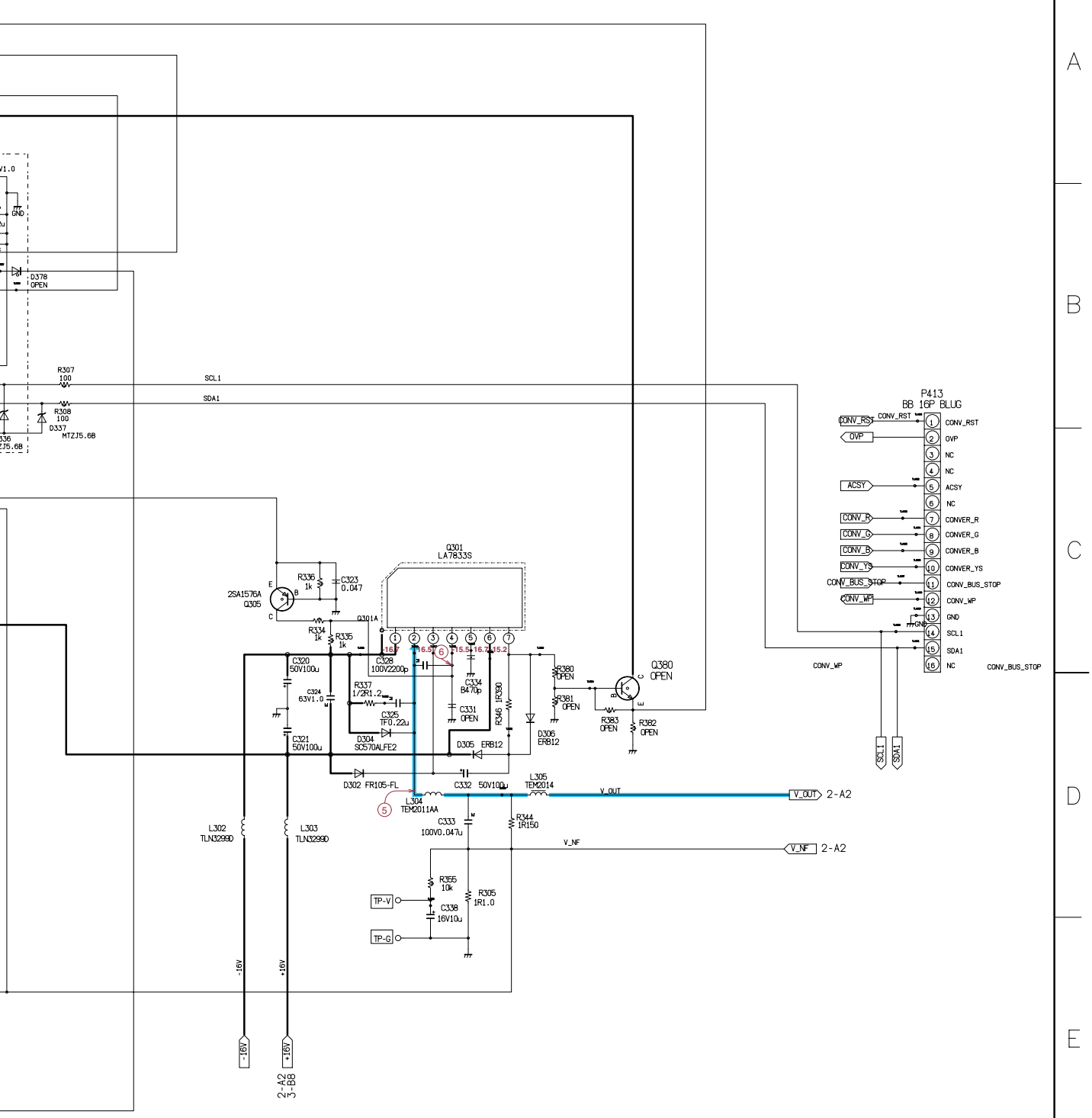


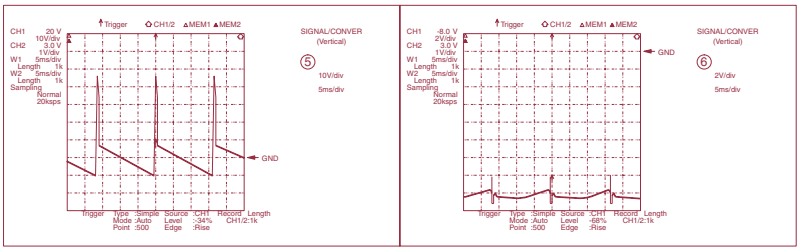
51HX93/57HX93/65HX93
SIGNAL - SYNC OUT
[SHEET-9/9]



51HX93/57HX93/65HX93
DEF/CONVER - Vertical
[SHEET-1/3]


16V_2
TUNER_32V
GND
9V_1
GND
GND
GND
ABL_SW
H_PHA_COM
ABL
AFC
V_STOP_BLK
V_OUT_BLK
VP_Q510
H_OUT_GND
H_OUT
BB 16P BLUG
P412
2-B2
3-E6
9V_1
2-B2
3-E5
AFC
3-E5
VP_Q510
L310
100u
C318
KETSU
D327
RD1ESAB1
R475
100
C483
OPEN
R483
OPEN
R484
KETSU
C316
OPEN
C315
10V1000
R491
2.2k
R480
47k
C481
50V0.01
R482
10k
R481
10k
R330
1/4R10KF
R331
1/4R10KF
R322
100
R321
5.6k
R325
4.7k
D308
OPEN
D309
OPEN
GJ31
0
GJ32
0
R364
330
R366
2.2k
D365
MTZJ7.5C
R367
3.9k
C302
50V1.0
C314
63V0.047
C312
B3300p
Q302 TA1317AN
VRef
CENT DAC
EHT
VDrive
VDCRef
BLK OUT
V NF
CENT OUT
Vcc
V DF OUT
EW PWM
ANA GND
H DF OUT
EW fb
DIG GND
EW Filter
FBP In
SCL
SDA
AGC
V RAMP
T.C
V In
LVP
PICH
C301 63V1.0
C303 63V1.0
C308 50V0.022u
R308 8.2k
R302 100
R379 OPEN
R311 56k
D336 MTZJ5.6B
B301
R467
22k
C463
B4700p
R466
27k
EW_NF
EW_DRIVE
R342
OPEN
Q341
OPEN
R345
SHORT
R347
OPEN
C330
16V10
C327
0.1uF
R348
4.7k
R338
15k
GJ30
OPEN
H_PHA_COM
R363
10k
C362
B25V0.047
R361
100k
R362
4.7k
R365 6.8k
R369
10k
R368
100
R360
4.7k
C361
0.1uF
R312
10k
R314
4.7k
C311
B25V0.01
C310
25V100
Q306
TA75902P(J)
DF_DRIVE
R343
1k
R341
18k
C340
16V47
R350
12k
R349
3.9k
C309
B1000p
D301
MTZJ7.5C
R315
RM73B1H681JD
R477
1/4R220F
Q371
2SA1980UF-Y
R378
10k
D370
1SS133
R374
100k
R371
82k
R370
1k
R375
15k
R373
82k
C370
2.2u
C371 0.1uF
R376
33k
R372
3.3k
Q372
2SC5343UF-Y
Q370 2SC5343UF-Y
V_STOP_BLK
HV_DET
HV_DET_OUT
HV_DET
HV_DET_OUT





51HX93/57HX93/65HX93
DEF/CONVER - Vertical
[SHEET-1/3]

TO CRT-DRIVE(GREEN) PD0080(P917)

5P_2.5mm_1.5A_Beige P404 — HEATER, GND, GND, NC, 220V

TO POWER

P411 6P_2.5mm_1.5A_Beige — +11V, GND, X_RAY, GND, +5V-1, OVP

P410 7P_2.5mm_1.5A_Beige — +120V, +120V, +120V, NC, GND(+120V), GND(+120V), GND(+120V)

1-E6 3-B8 +16V · 1-D7 V_OUT · 1-D7 V_NF · ABL · 1-C1 3-E5 AFC · ABL_SW · EW_NF · 3-E5 AFC_2 · EW_DRIVE · BF_DRIVE · 3-D1 3-B1 3-E6 9V_1 · 16V_2 · H_OUT · 1-B1 TINNER_32V

D401 AG01 · D402 FR105-FL EU2A · D450 FR105-FL EU2A · D415 FR105-FL EU2A · D414 FR105-FL EU2A · D421 FR105-FL EU2A · D425 FR105-FL EU2A

L401 56u · L441 TLN2222AG · L442 OPEN · L403 TEM2011AA · L402 TLN3534AH · L407 TEM2014 · L408 TEM2014 · L405 TLN3514D · L406 TLN3514D

T461 TFB3092AD · T401 TLN1080AH · T400 TLN2220AH · Z450 TPA5010AH · Z401 SG99B3EN

Q241 2SC2482 · Q420 2SC2482 · Q409 KTC3198Y · Q408 KTA1266Y · Q404 2SC5859 · Q406 KTC3198Y · Q405 KTA1266Y · Q402 2SK941 · Q410 2SC4081-Q · Q411 2SC4081-Q · Q400 2SC4686A · Q428 KTC3198Y · Q425 FET 2SK2920

D491 1SS133 · D492 MTZJ10B · D491 1SS133 · D490 MTZJ6.2B · D420 1SS133 · D419 1SS355 · D418 MTZJ33C · D411 MTZJ18B · D426 MTZJ18B · D461 FMG-33SJ · D461A · D464 ERC06-15L · D468 PF_S30V6.8n_J · D467 PF_S30V6.8n_J

R249 1/6P470k · R513 1/6P100 · R242 1/6P22kG · R241 1/6P22kG · R243 1/6P33kG · R240 1/6P15kG · R246 1/6P4.7k · R244 1/6P120k · R248 OPEN · R245 1/6P4.7k · R515 1/6P10k · R420 1/6P10k · R247 1/6P1k · R422 1/6P22k · R421 1/6P22k · R910 OPEN · R407 1/2R10 · R406 1R6.8k · R404 1/6P2.7k · R405 1/6P100 · R447 1R4.7k · R443 1/2R1 · R444 1R0.39 · R499 1/6P1k · R498 1/6P10k · R496 1/6P10k · R495 1/6P33k · R492 1.2kF · R494 470F · R493 220F · R497 1/6P10 · R416 2R100 · R414 1/4RF27 · R415 1/6P1k · R413 1/6P100 · R403 1R100 · R417 2.2k · R440 10k · R439 10k · R438 1k · R418 10k · R419 10k · R437 22k · R436 1/6P47k · R448 1/6P5.6k · R445 1/6P10k · R449 1/6P1.5k · R410 3R22 · R409 3R22 · R470 1/6P220k · R469 1/6P100 · R490 1/2R330 · R412 2R15k · R441 2RF330 · R411 2R4_J · R412 2R15k · R425 1/2P100K · R424 1/2P100K · R423 1/2S1k · R434 1/2P270K · R432 1/2P270K · R433 1/2P270K · R428 1P220k · R431 2S1k · R427 1/6P100 · R435 1/6P3.3k · R426 1/6P100 · R429 1/2S1k · R390 1R560 · R391 1R560 · R392 1R560

C221 63V0.10 · C515 63V0.10 · C405 63V0.10 · C446 250V33 · C445 200V47n · C448 160V33u · C448Z · C491 16V10 · C450 25V1000 · C416 100V22u · C401 500V3300p · C402 500V390p · C440 1800V1000p · C444 1800V4300p · C443 1800V4100p · C464 250V3.3u · C432 500V0.033u · C449 500V220p · C460 200V22u · C417 250V1.5u · C425 400V0.27u · C423 400V0.30u · C412 200V82n_J · C412Z · C415 2kV1500p · C422 50V1000p · C426 2kV2200p · C420 63V0.10 · C467 PP_S30V6.8n_J

123Vp-p · 30Vp-p · 30Vp-p · 122V · 123Vp-p · 1200Vp-p · 0.1ohm · 2.2ohm

P499 1P · P405 PLUG 3P_5mm · P401 6P_5mm_5A · P402 6P_5mm_5A · P403 6P_5mm_5A

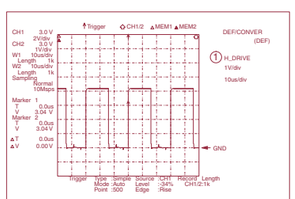
L462 TDY707AS(R) · L463 TDY707AS(R) · L464 TDY707AS(R) — 2.65ohm, 1ohm, (V), (H)

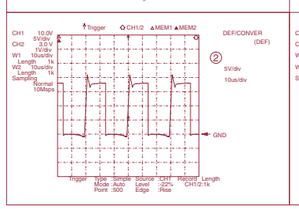
Focus Pack — RED, GREEN, BLUE, IN, DF, GND

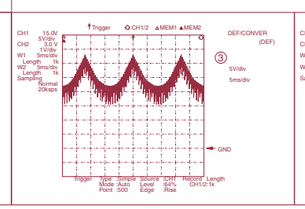
TE482 · TE481

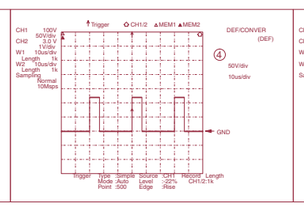
GJ406 OPEN · GJ42 0.6 · GJ43 0.6 · R442 OPEN

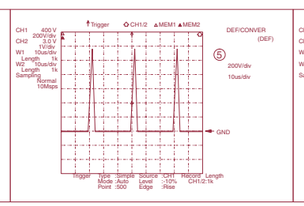
HV_DET · HV_DET_OUT · +11V · 3-A1

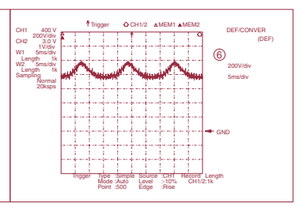




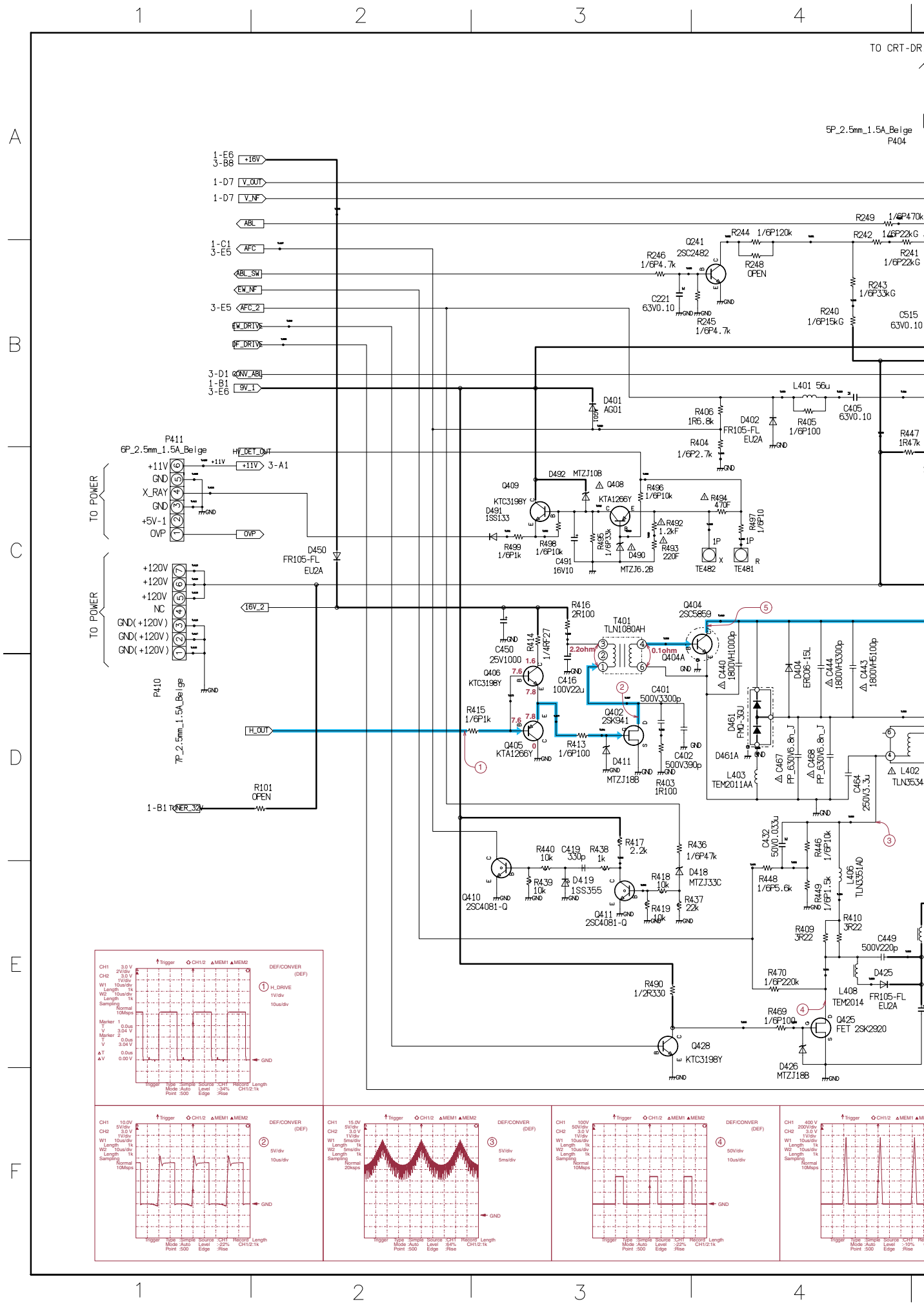


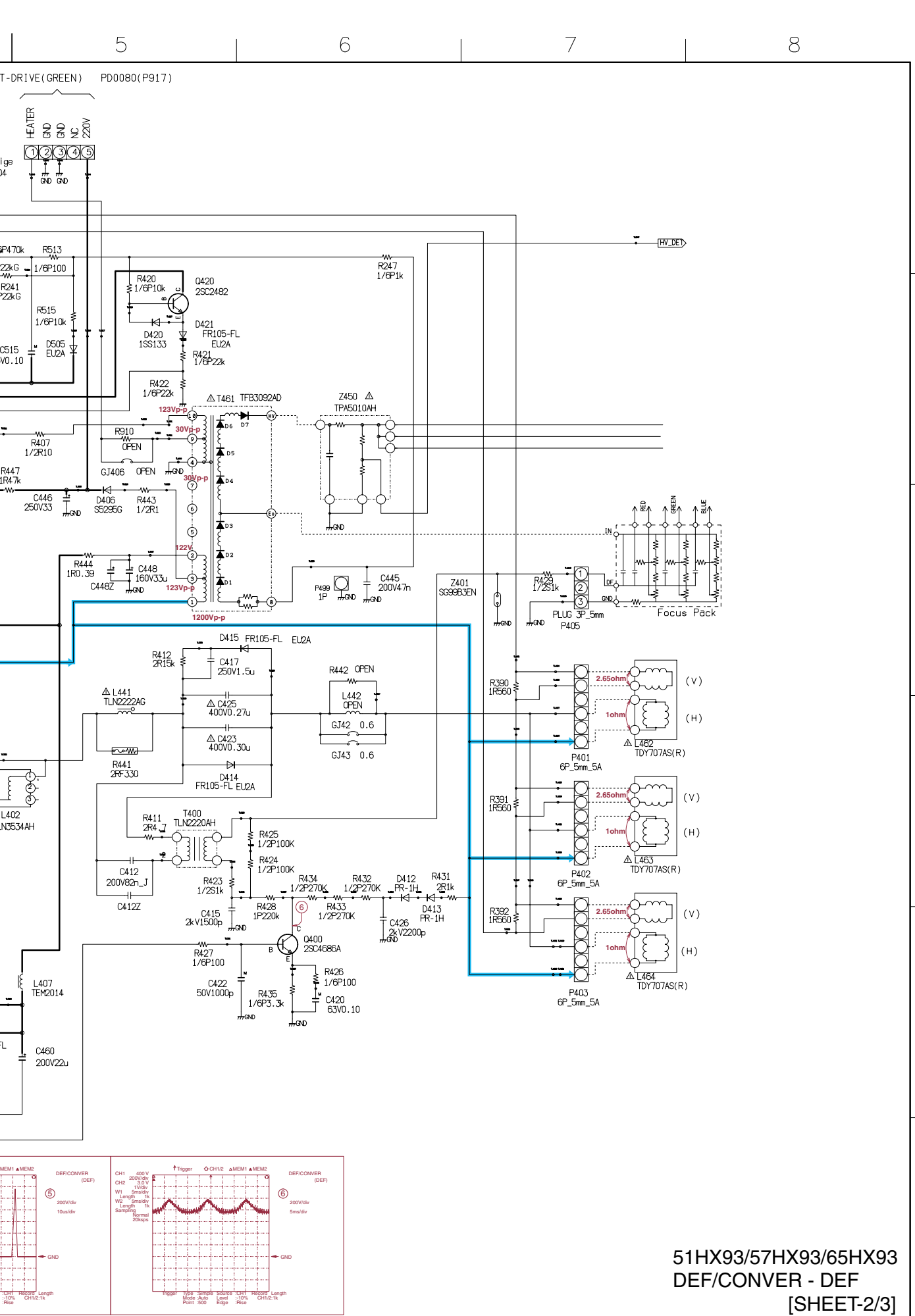




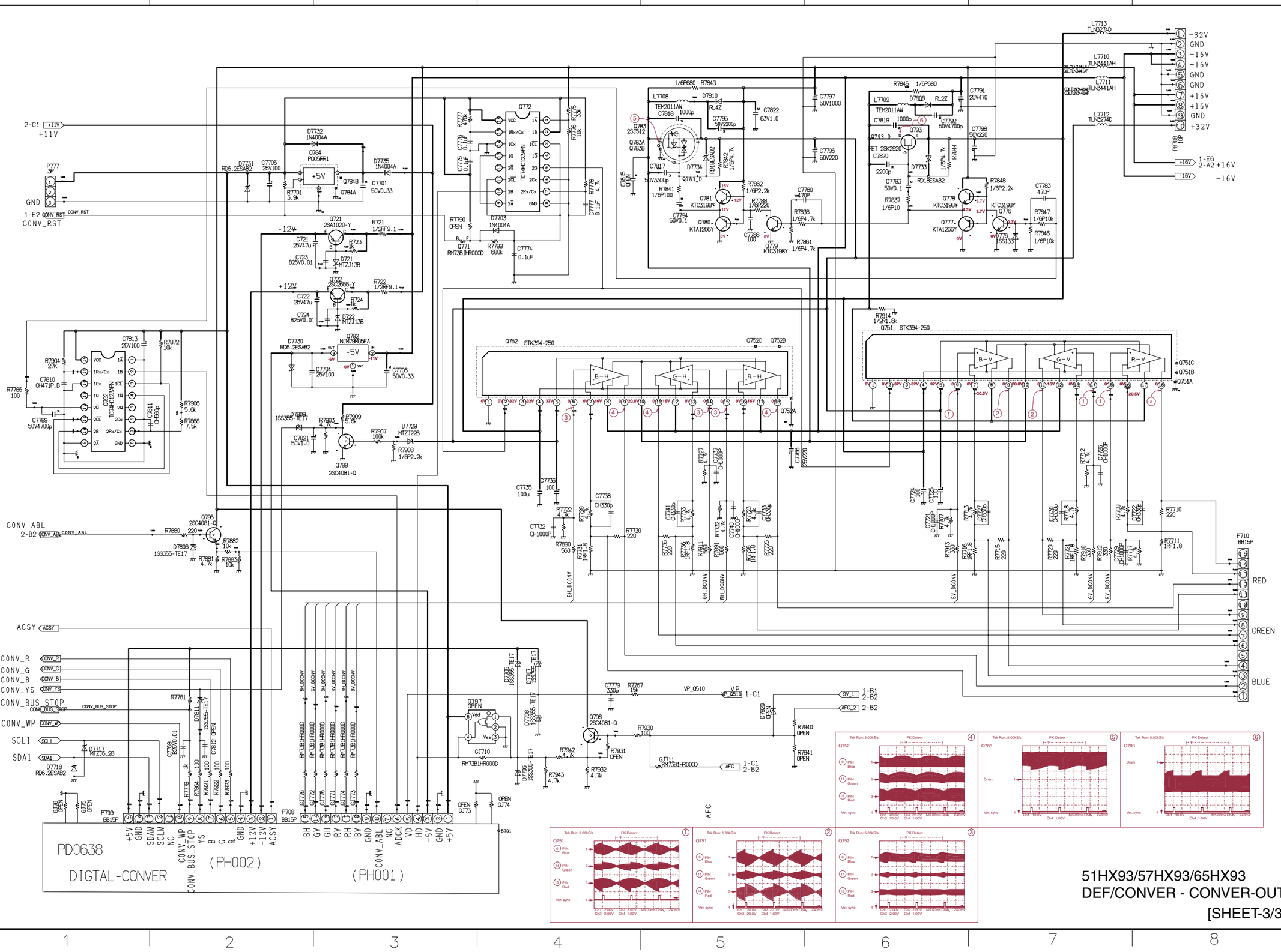


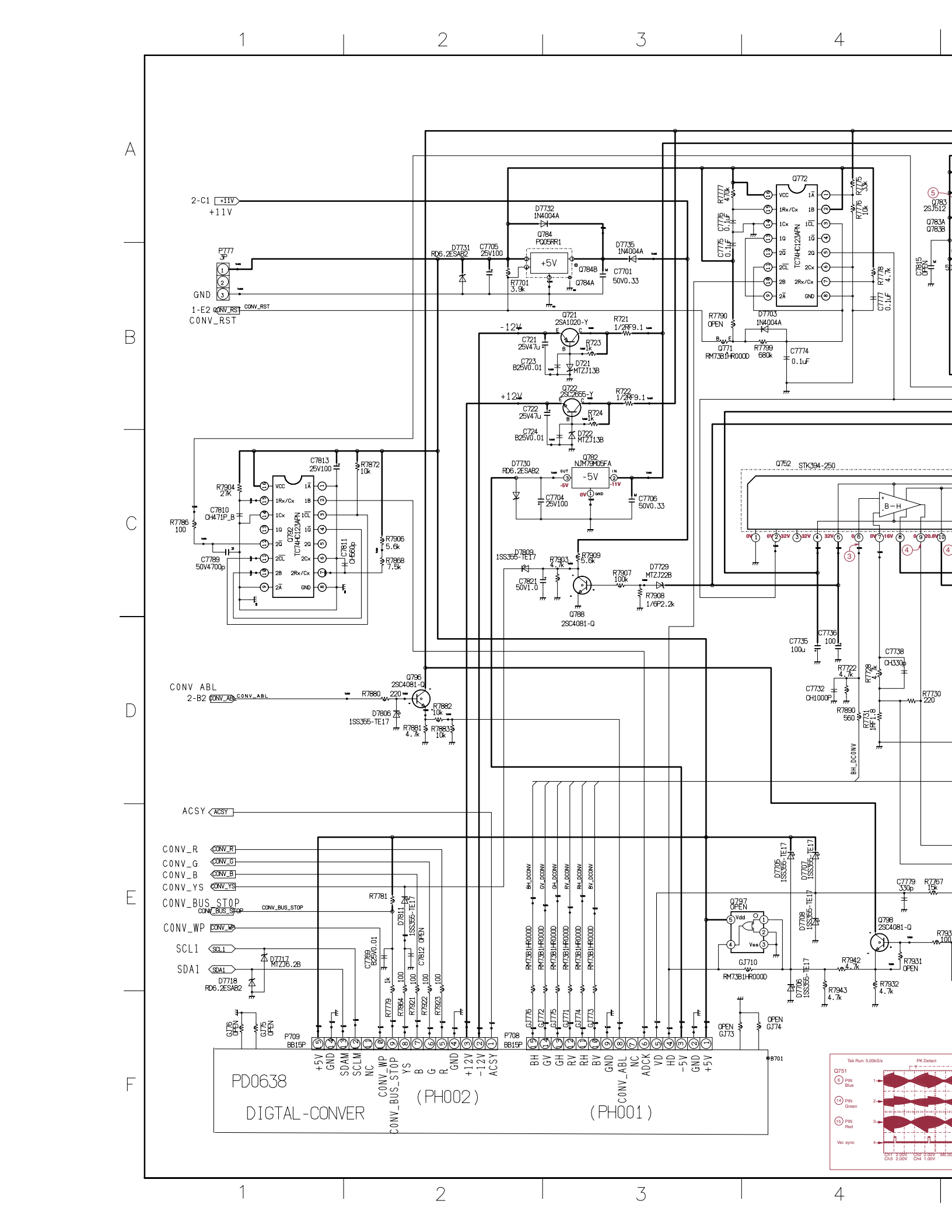
51HX93/57HX93/65HX93
DEF/CONVER - DEF
[SHEET-2/3]

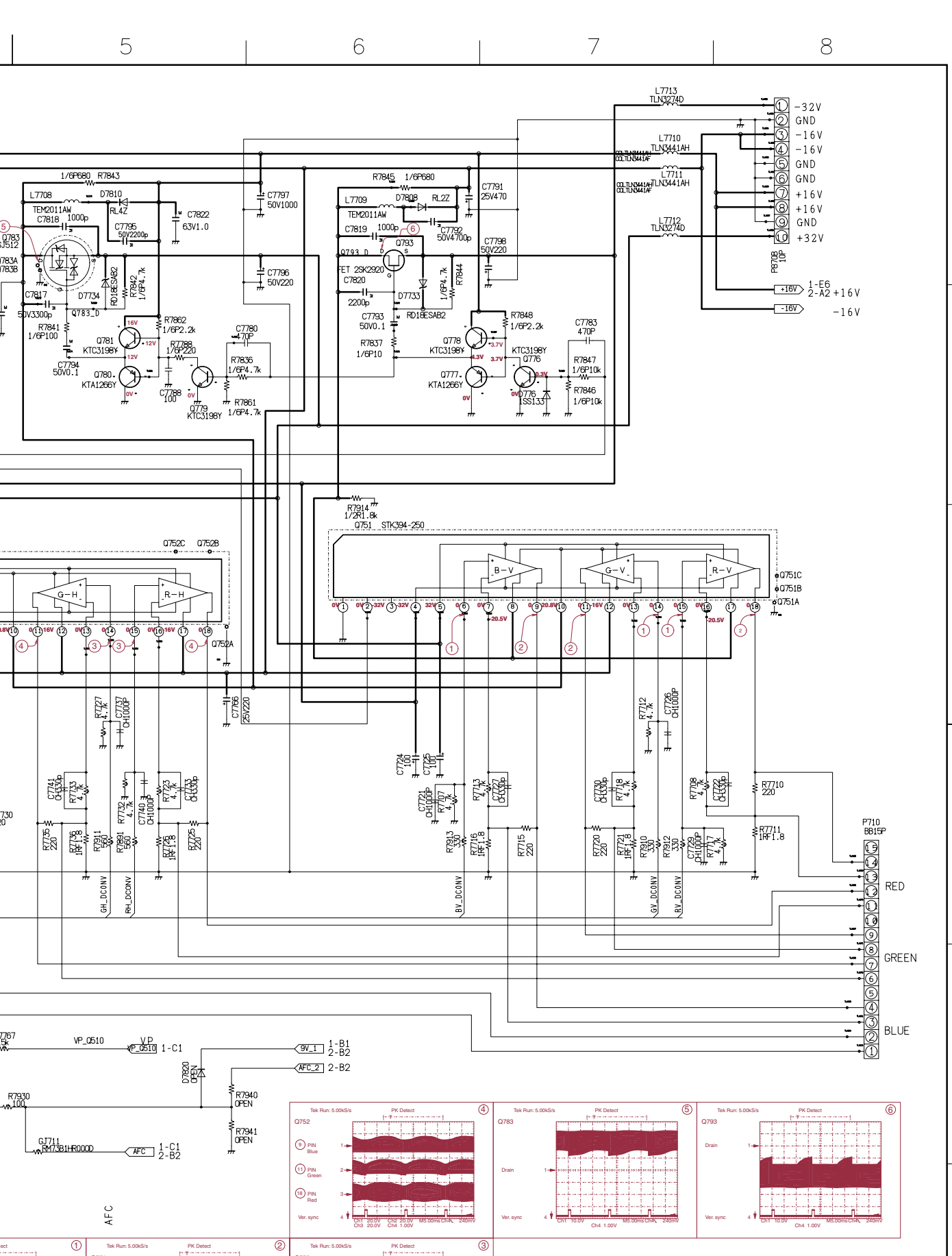

TO CRT-DR
5P_2.5mm_1.5A_Beige
P404
1-E6
3-B8
+16V
1-D7
V_OUT
1-D7
V_NF
ABL
1-C1
3-E5
AFC
ABL_SW
EW_NF
3-E5
AFC_2
EW_DRIVE
DF_DRIVE
3-D1
1-B1
3-E6
CONV_ABL
9V_1
P411
6P_2.5mm_1.5A_Beige
+11V
GND
X_RAY
GND
+5V-1
OVP
TO POWER
HV_DET_OUT
+11V
3-A1
OVP
D450
FR105-FL
EU2A
+120V
+120V
+120V
NC
GND(+120V)
GND(+120V)
GND(+120V)
TO POWER
P410
7P_2.5mm_1.5A_Beige
16V_2
H_OUT
R101
OPEN
1-B1
TONER_32V
Q241
2SC2482
R244 1/6P120k
R246 1/6P4.7k
R248 OPEN
R242 1/6P22kG
R241 1/6P22kG
R243 1/6P33kG
R240 1/6P15kG
C515 63V0.10
C221 63V0.10
R245 1/6P4.7k
R249 1/6P470k
D401 AG01
L401 56u
C405 63V0.10
R406 1R6.8k
D402 FR105-FL EU2A
R405 1/6P100
R404 1/6P2.7k
R447 1R47k
D492 MTZJ10B
Q409 KTC3198Y
Q408 KTA1266Y
D491 1SS133
R496 1/6P10k
R494 470F
R492 1.2kF
R497 1/6P10
R499 1/6P1k
R498 1/6P10k
R495 1/6P33k
D490 MTZJ6.2B
R493 220F
C491 16V10
TE482
TE481
R416 2R100
T401 TLN1080AH
Q404 2SC5859
Q404A
C450 25V1000
R414 1/4RF27
Q406 KTC3198Y
C416 100V22u
C401 500V3300p
Q402 2SK941
R415 1/6P1k
Q405 KTA1266Y
R413 1/6P100
D411 MTZJ18B
R403 1R100
C402 500V390p
C440 1800VH100p
C444 1800VH330p
C443 1800VH5100p
D404 ERC06-15L
D461 FMQ-33J
D461A
C467 PP_630V6.8n_J
C468 PP_630V6.8n_J
L403 TEM2011AA
L402 TLN3534
C464 250V3.3u
C432 50V0.033u
R446 1/6P10k
R448 1/6P5.6k
R449 1/6P1.5k
L406 TLN3351AD
R410 3R22
R409 3R22
C449 500V220p
D425
L408 TEM2014
FR105-FL EU2A
R470 1/6P220k
R469 1/6P100
Q425 FET 2SK2920
D426 MTZJ18B
R490 1/2R330
Q428 KTC3198Y
R417 2.2k
R436 1/6P47k
R440 10k
C419 330p
R438 1k
D418 MTZJ33C
R439 10k
D419 1SS355
R418 10k
R437 22k
Q410 2SC4081-Q
Q411 2SC4081-Q
R419 10k
2.2ohm
0.1ohm
1.6
7.6
7.8
7.8
7.6
0
A
B
C
D
E
F
1
2
3
4



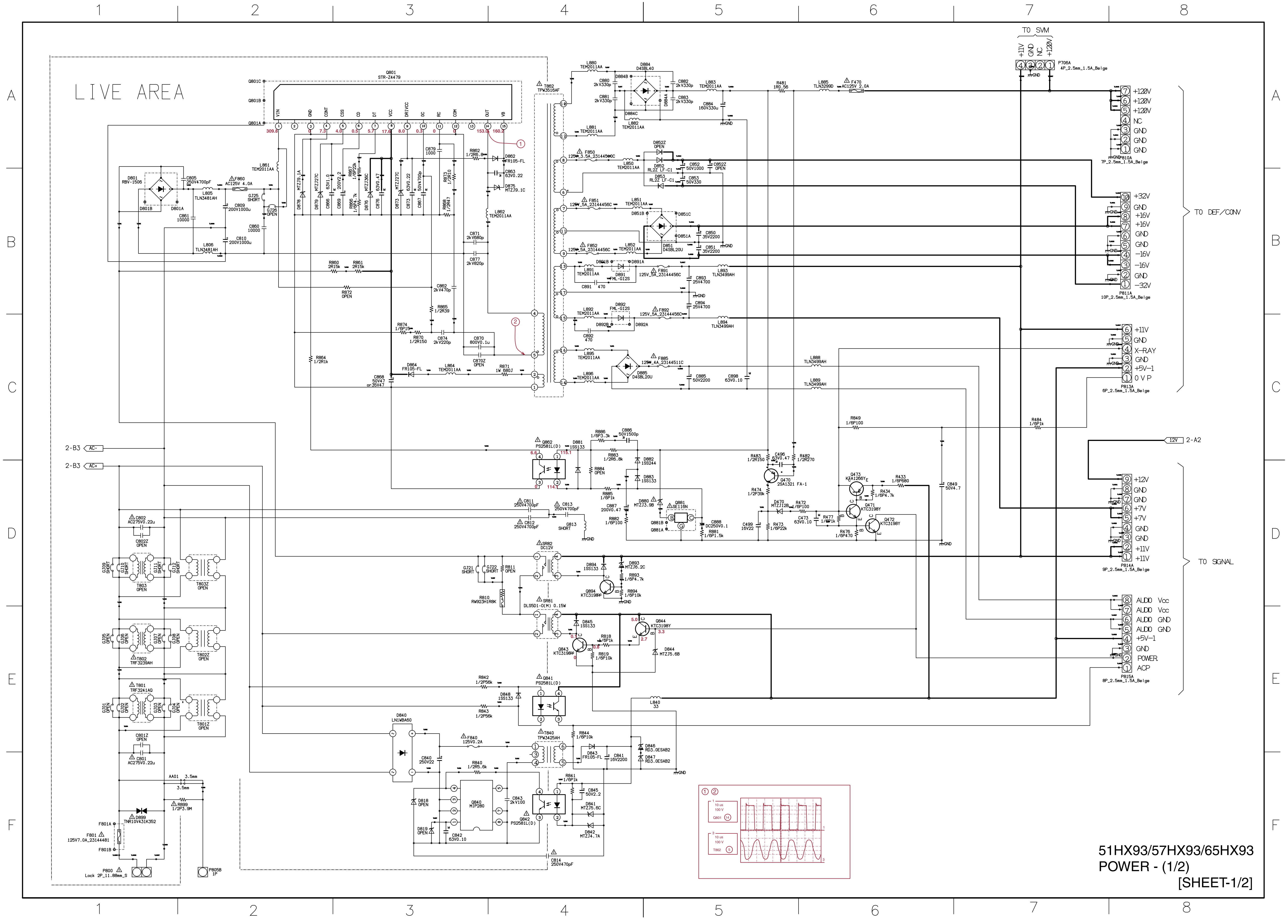
51HX93/57HX93/65HX93
DEF/CONVER - DEF
[SHEET-2/3]


2-C1 +11V
+11V
P777
GND
1-E2 CONV_RST
CONV_RST
+5V
-12V
+12V
-5V
Q721 2SA1020-Y
Q722 2SC2655-Y
Q782 NJM79M05FA
Q772 TC74HC123APN
Q752 STK394-250
Q751 STK394-250
B-H
G-H
R-H
B-V
G-V
R-V
Q788 2SC4081-Q
Q796 2SC4081-Q
Q797
Q798 2SC4081-Q
GJ710
RM73B1HR000D
CONV ABL
2-B2 CONV_ABL
ACSY
CONV_R
CONV_G
CONV_B
CONV_YS
CONV_BUS_STOP
CONV_WP
SCL1
SDA1
AFC
VP_0510
1-C1
2-B2
1-E6
2-A2 +16V
-16V
-32V
GND
-16V
-16V
GND
GND
+16V
+16V
GND
+32V
RED
GREEN
BLUE
PD0638
DIGTAL-CONVER
(PH002)
(PH001)
+5V GND SDAM SCLM NC CONV_WP CONV_BUS_STOP YS B G R GND +12V -12V ACSY
BH GV GH RV RH BV GND CONV_ABL NC ADCK VD HD -5V GND +5V
51HX93/57HX93/65HX93
DEF/CONVER - CONVER-OUT
[SHEET-3/3]

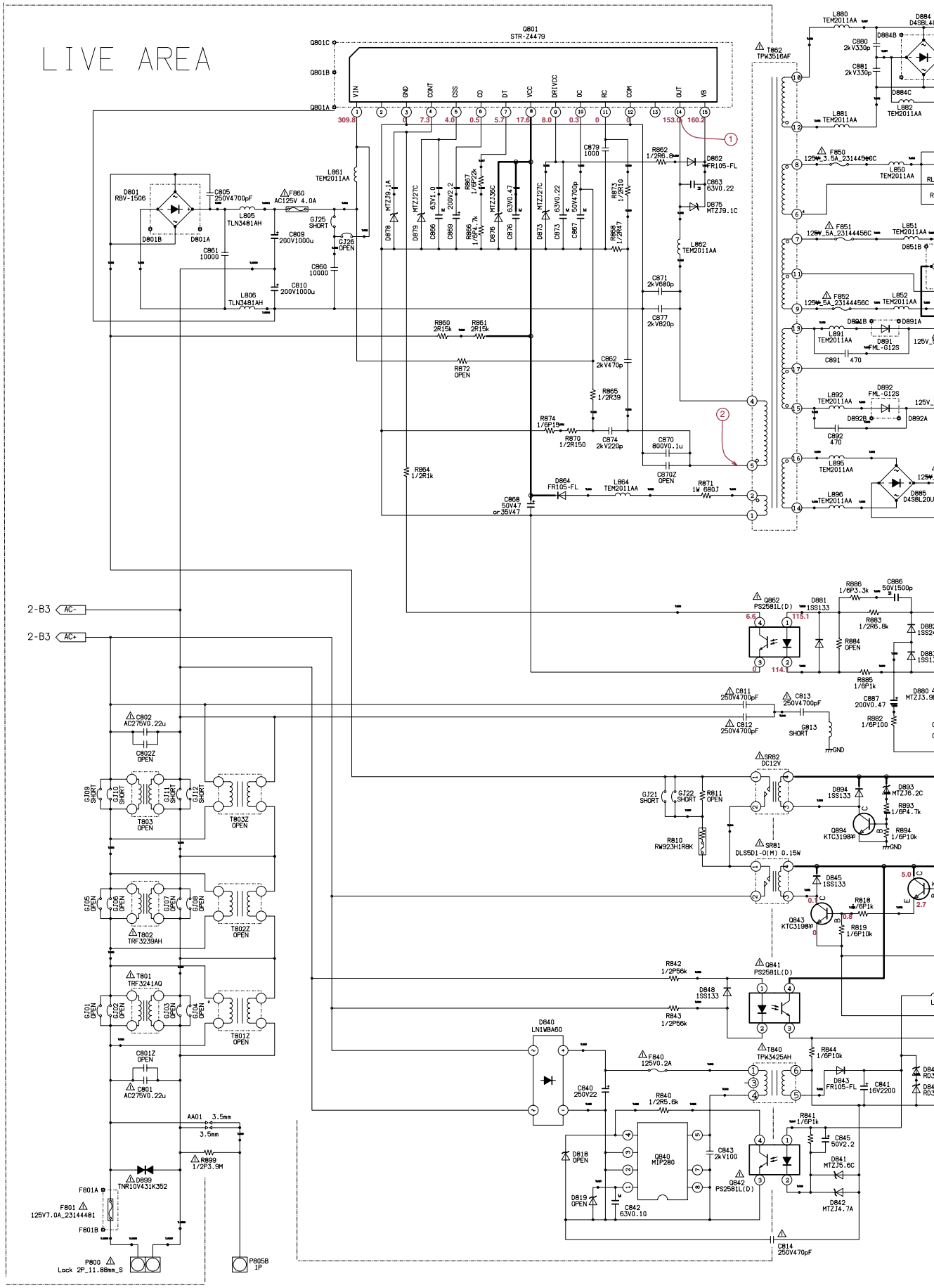

2-C1 +11V
+11V
P777
GND
1-E2 CONV_RST
CONV_RST
D7732 1N4004A
Q784 RQ05RR1
+5V
D7731 RD6.2ESAB2
C7705 25V100
R7701 3.9k
Q784B
Q784A
D7735 1N4004A
C7701 50V0.33
Q772
TC74HC123APN
R7777 470k
C7776 0.1uF
C7775 0.1uF
R7775 33k
R7776 10k
R7778 4.7k
C7777 0.1uF
C7815 OPEN
Q783 2SJ512
Q783A
Q783B
R7790 OPEN
D7703 1N4004A
Q771 RM73B1HR000D
R7799 680k
C7774 0.1uF
-12V
Q721 2SA1020-Y
R721 1/2RF9.1
C721 25V47u
R723 1k
C723 B25V0.01
D721 MTZJ13B
+12V
Q722 2SC2655-Y
R722 1/2RF9.1
C722 25V47u
R724 1k
C724 B25V0.01
D722 MTZJ13B
C7813 25V100
R7872 10k
R7904 27K
C7810 CH471P_B
R7886 100
C7789 50V4700p
C7811 CH560p
R7906 5.6k
R7868 7.5k
D7730 RD6.2ESAB2
Q782 NJM79M05FA
-5V
C7704 25V100
C7706 50V0.33
Q752 STK394-250
B-H
D7809 1SS355-TE17
C7821 50V1.0
R7903 4.7k
R7909 5.6k
R7907 100k
D7729 MTZJ22B
R7908 1/6P2.2k
Q788 2SC4081-Q
C7735 100u
C7736 100
C7738 CH330p
R7722 4.7k
R7728 4.7k
C7732 CH1000P
R7890 560
R7730 220
R7731 1KF1%
BH_DCONV
CONV ABL
2-B2 CONV_ABL
Q796 2SC4081-Q
R7880 220
D7806 1SS355-TE17
R7882 10k
R7881 4.7k
R7883 10k
ACSY
CONV_R
CONV_G
CONV_B
CONV_YS
CONV_BUS_STOP
CONV_WP
SCL1
SDA1
R7781
D7811 1SS355-TE17
C7812 OPEN
C7789 B25V0.01
D7717 MTZJ6.2B
D7718 RD6.2ESAB2
R7779 1k
R7864 100
R7921 100
R7922 100
R7923 100
GJ76 OPEN
GJ75 OPEN
P709 BB15P
P708 BB15P
BH_DCONV
GV_DCONV
GH_DCONV
RV_DCONV
RH_DCONV
BV_DCONV
RM73B1HR000D
GJ772
GJ775
GJ771
GJ774
GJ773
GJ776
OPEN GJ73
OPEN GJ74
D7705 1SS355-TE17
D7707 1SS355-TE17
D7708 1SS355-TE17
D7706 1SS355-TE17
C7779 330p
R7767 15k
Q797 OPEN
Vdd
Vss
GJ710
RM73B1HR000D
Q798 2SC4081-Q
R7942 4.7k
R7931 OPEN
R7943 4.7k
R7932 4.7k
B701
+5V GND SDAM SCLM NC CONV_WP CONV_BUS_STOP YS B G R GND +12V -12V ACSY
BH GV GH RV RH BV GND CONV_ABL NC ADCK VD HD -5V GND +5V
PD0638
DIGTAL-CONVER
(PH002)
(PH001)
Tek Run: 5.00kS/s
PK Detect
Q751
6 PIN Blue
14 PIN Green
15 PIN Red
Ver. sync

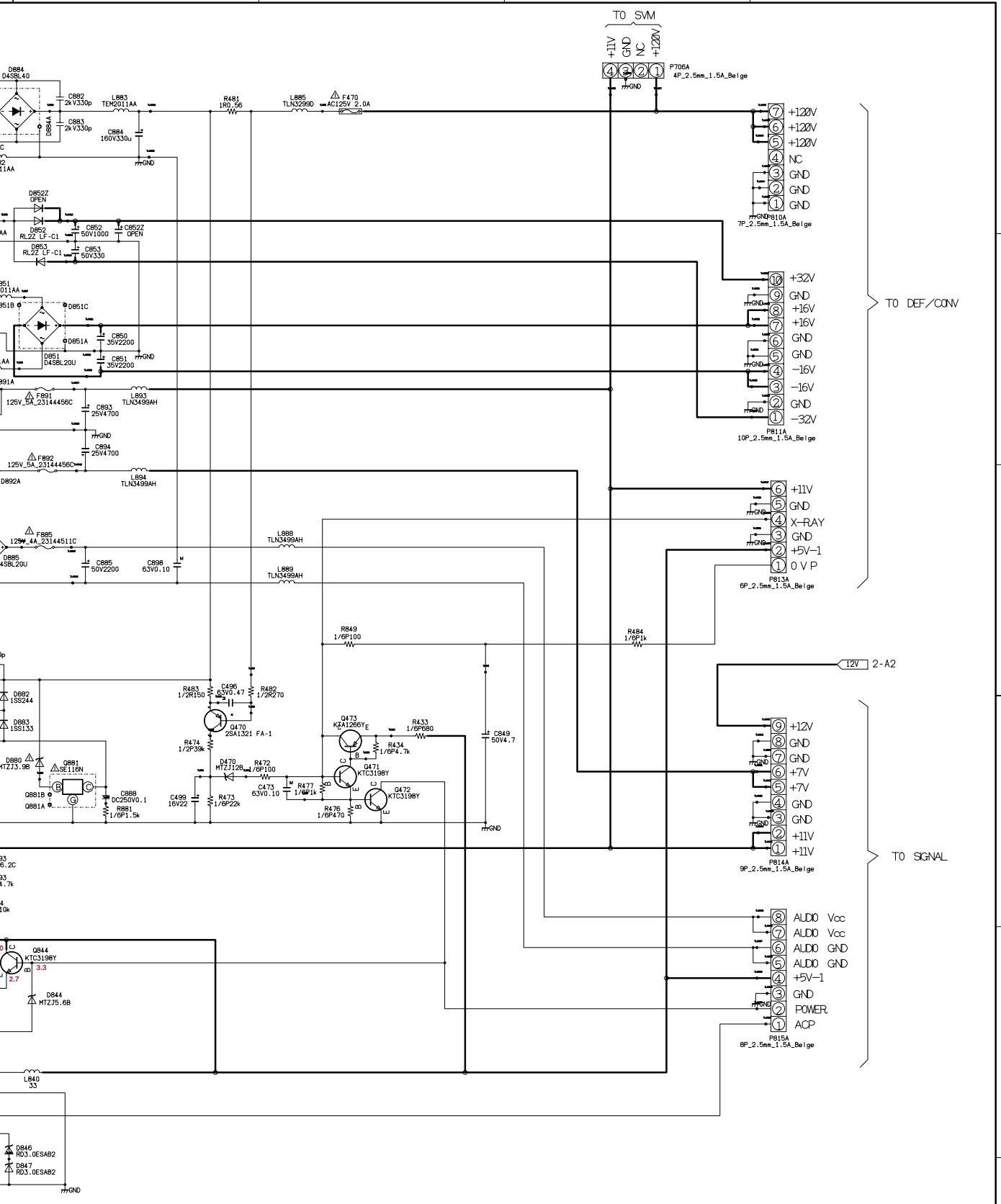


51HX93/57HX93/65HX93
DEF/CONVER - CONVER-OUT
[SHEET-3/3]

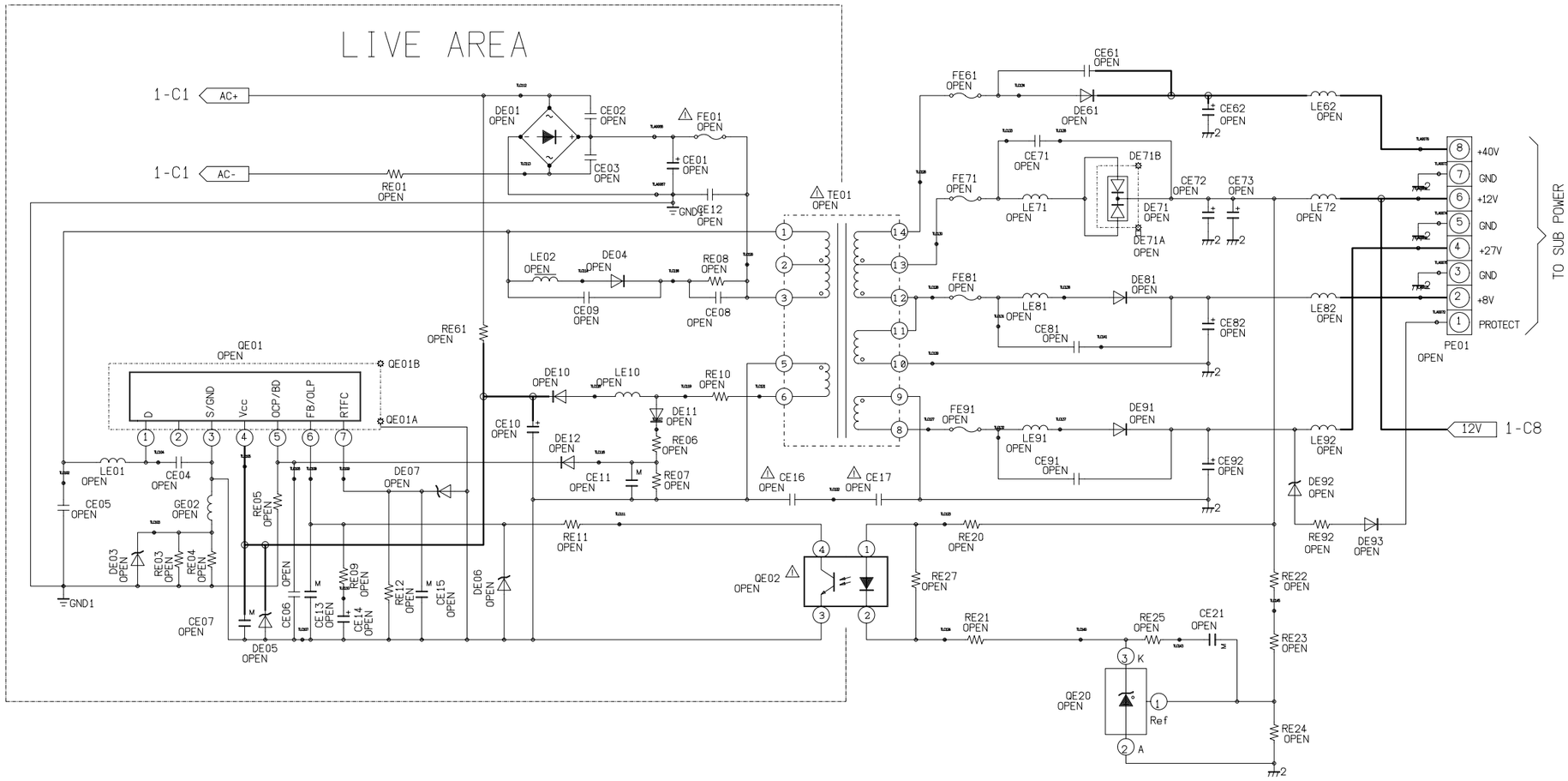

LIVE AREA
Q801 STR-Z4479
VIN GND CONT CSS CD DT VCC DRIVCC OC RC COM OUT VB
309.8 0 7.3 4.0 0.5 5.7 17.6 8.0 0.3 0 0 153.0 160.2
D801 RBV-1506
C805 250V4700pF
F860 AC125V 4.0A
L805 TLN3481AH
L806 TLN3481AH
C809 200V1000u
C810 200V1000u
C861 10000
C860 10000
GJ25 SHORT
GJ26 OPEN
L861 TEM2011AA
T862 TPW3516AF
D884 D4SBL40
C884 160V330u
R481 1R0.56
L885 TLN3299D
F470 AC125V 2.0A
F850 125V_3.5A_23144540C
D852 RL2Z LF-C1
C852 50V1000
D853 RL2Z LF-C1
C853 50V330
F851 125V_5A_23144456C
D851 D4SBL20U
C850 35V2200
C851 35V2200
F852 125V_5A_23144456C
D891 FML-G12S
F891 125V_5A_23144456C
C893 25V4700
C894 25V4700
D892 FML-G12S
F892 125V_5A_23144456C
D885 D4SBL20U
F885 125V_4A_23144511C
C885 50V2200
C898 63V0.10
TO SVM
+11V GND NC +120V
P706A 4P_2.5mm_1.5A_Beige
+120V +120V +120V NC GND GND GND
P810A 7P_2.5mm_1.5A_Beige
+32V GND +16V +16V GND GND -16V -16V GND -32V
P811A 10P_2.5mm_1.5A_Beige
TO DEF/CONV
+11V GND X-RAY GND +5V-1 0 V P
P813A 6P_2.5mm_1.5A_Beige
12V 2-A2
+12V GND GND +7V +7V GND GND +11V +11V
P814A 9P_2.5mm_1.5A_Beige
TO SIGNAL
AUDIO Vcc AUDIO Vcc AUDIO GND AUDIO GND +5V-1 GND POWER ACP
P815A 8P_2.5mm_1.5A_Beige
2-B3 AC-
2-B3 AC+
Q862 PS2581L(D)
Q881 SE116N
Q470 2SA1321 FA-1
Q471 KTC3198Y
Q472 KTC3198Y
Q473 KTA1266Y
SR82 DC12V
SR81 DLS5D1-O(M) 0.15W
Q894 KTC3198Y
Q843 KTC3198Y
Q844 KTC3198Y
Q841 PS2581L(D)
D840 LN1WBA60
T840 TPW3425AH
Q840 MIP280
Q842 PS2581L(D)
C814 250V470pF
T803 OPEN
T802 TRF3239AH
T801 TRF3241AQ
C802 AC275V0.22u
C801 AC275V0.22u
D899 TNR10V431K352
F801 125V7.0A_23144481
P800 Lock 2P_11.88mm_S
P805B 1P
10 us 100 V Q801 14
10 us 100 V T862 5

51HX93/57HX93/65HX93
POWER - (1/2)
[SHEET-1/2]

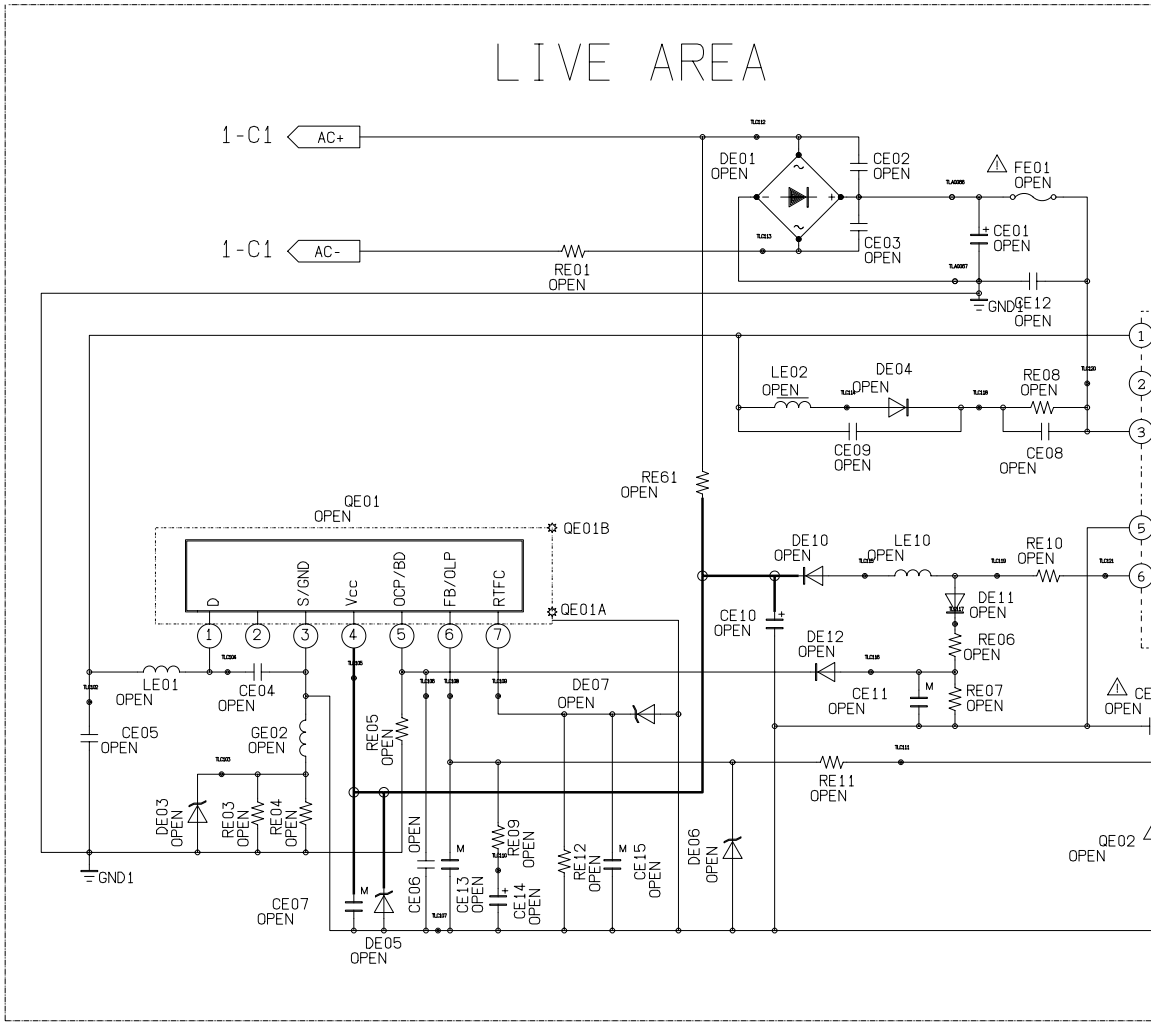

LIVE AREA
Q801
STR-Z4479
VIN
GND
CONT
CSS
CD
DT
VCC
DRIVCC
OC
RC
COM
OUT
VB
309.8
0
7.3
4.0
0.5
5.7
17.6
8.0
0.3
0
153.0
160.2
T862
TPW3516AF
L880
TEM2011AA
L881
TEM2011AA
L882
TEM2011AA
L850
TEM2011AA
L851
TEM2011AA
L852
TEM2011AA
L891
TEM2011AA
L892
TEM2011AA
L895
TEM2011AA
L896
TEM2011AA
L861
TEM2011AA
L862
TEM2011AA
L805
TLN3481AH
L806
TLN3481AH
D801
RBV-1506
D801B
D801A
F860
AC125V 4.0A
F850
125V_3.5A_23144540C
F851
125V_5A_23144456C
F852
125V_5A_23144456C
GJ25
SHORT
GJ26
OPEN
C805
250V4700pF
C809
200V1000u
C810
200V1000u
C860
10000
C861
10000
C862
2kV470p
C863
63V0.22
C870
800V0.1u
C870Z
OPEN
C871
2kV680p
C874
2kV220p
C875
50V4700p
C877
2kV820p
C879
1000
C880
2kV330p
C881
2kV330p
C884B
C884C
C887
200V0.47
C891
470
C892
470
D862
FR105-FL
D875
MTZJ9.1C
D876
MTZJ9.1A
D877
MTZJ27C
D878
MTZJ9.1A
D879
MTZJ27C
D886
63V1.0
D889
200V2.2
D873
MTZJ27C
D874
MTZJ36C
D864
FR105-FL
D881
1SS133
D891
FML-G12S
D892
FML-G12S
D892A
D892B
D891A
D891B
D885
D4SBL20U
D884
D4SBL40
R862
1/2R6.8
R863
1/2R10
R864
1/2R1k
R865
1/2R39
R866
1/2R47
R867
1/2R22k
R868
1/2R47
R869
1/2R47k
R870
1/2R150
R871
1W 680J
R872
OPEN
R874
1/6P15
R860
2R15k
R861
2R15k
R886
1/6P3.3k
R883
1/2R6.8k
R884
OPEN
R885
1/6P1k
R882
1/6P100
C868
50V47
C886
50V1500p
C887
200V0.47
Q862
PS2581L(D)
2-B3
AC-
2-B3
AC+
C811
250V4700pF
C812
250V4700pF
C813
250V4700pF
C813
SHORT
GND
C802
AC275V0.22u
C802Z
OPEN
T803
OPEN
T803Z
OPEN
T802
TRF3239AH
T802Z
OPEN
T801
TRF3241AQ
T801Z
OPEN
C801Z
OPEN
C801
AC275V0.22u
GJ09
SHORT
GJ10
SHORT
GJ11
SHORT
GJ12
SHORT
GJ05
OPEN
GJ06
OPEN
GJ07
OPEN
GJ08
OPEN
GJ01
OPEN
GJ02
OPEN
GJ03
OPEN
GJ04
OPEN
AA01
3.5mm
3.5mm
R899
1/2P3.9M
D899
TNR10V431K352
F801A
F801
125V7.0A_23144481
F801B
P800
Lock 2P_11.88mm_S
P805B
1P
SR82
DC12V
SR81
DLS5D1-O(M) 0.15W
GJ21
SHORT
GJ22
SHORT
R811
OPEN
R810
RW923HIR8K
D894
1SS133
Q894
KTC3198Y
R893
1/6P4.7k
R894
1/6P10k
D845
1SS133
Q843
KTC3198Y
R818
1/6P1k
R819
1/6P10k
D840
LN1WBA60
F840
125V0.2A
C840
250V22
R840
1/2P5.6k
R842
1/2P56k
R843
1/2P56k
D848
1SS133
Q841
PS2581L(D)
R844
1/6P10k
D843
FR105-FL
C841
16V2200
R841
1/6P1k
C845
50V2.2
D841
MTZJ5.6C
D842
MTZJ4.7A
Q840
MIP280
C843
2kV100
C842
63V0.10
D818
OPEN
D819
OPEN
Q842
PS2581L(D)
C814
250V470pF

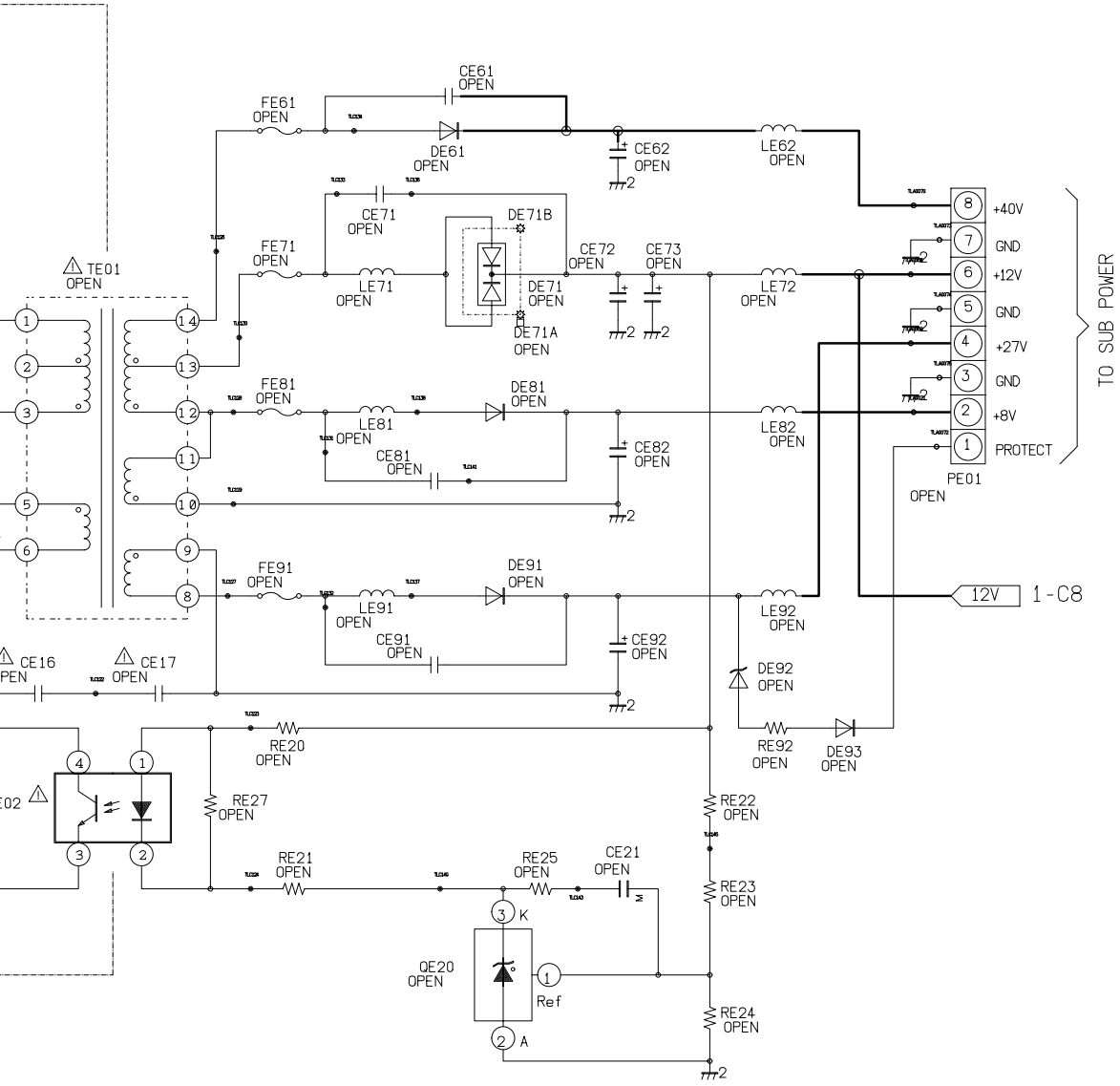


51HX93/57HX93/65HX93
POWER - (1/2)
[SHEET-1/2]

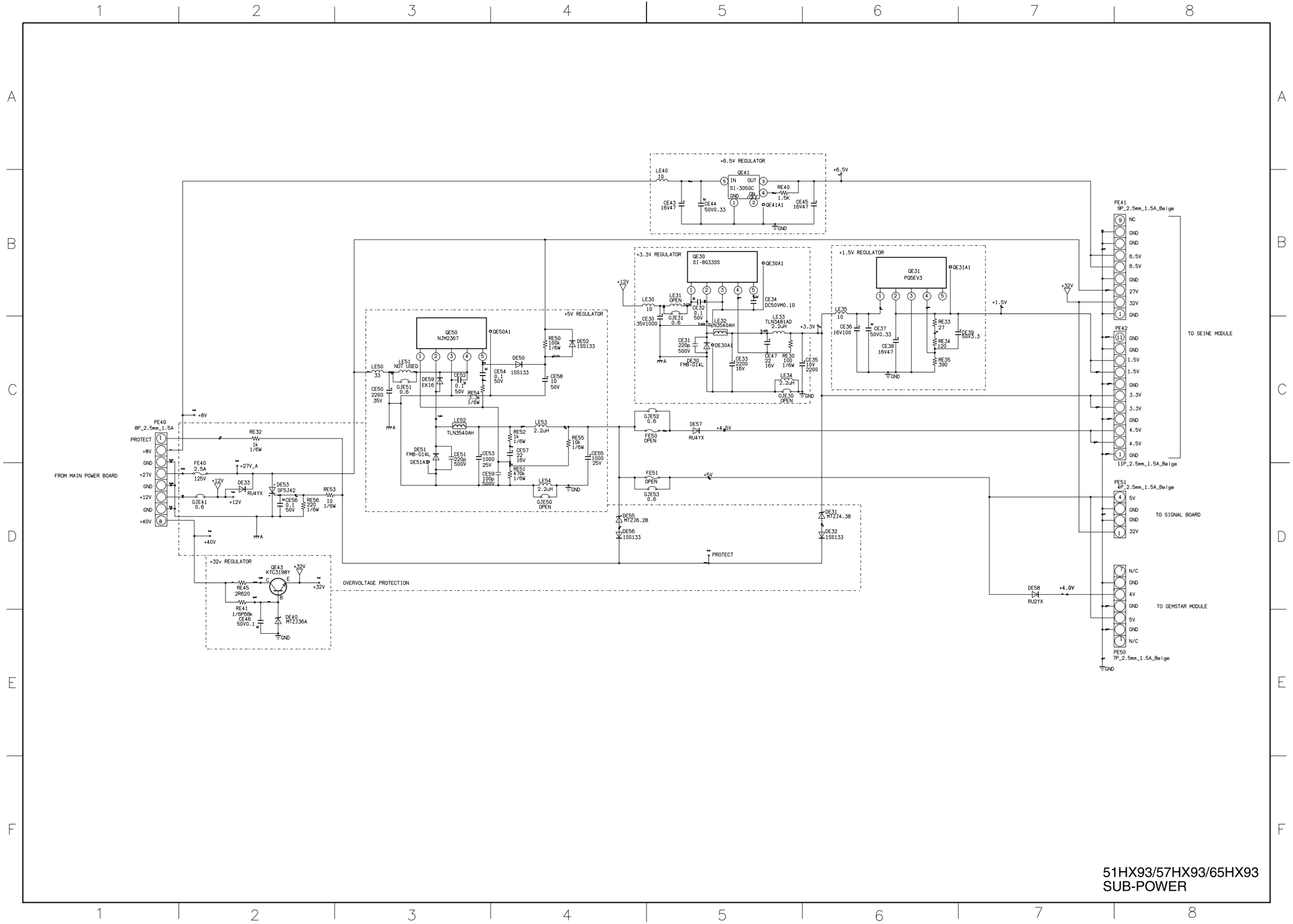


51HX93/57HX93/65HX93
POWER - (2/2)
[SHEET-2/2]

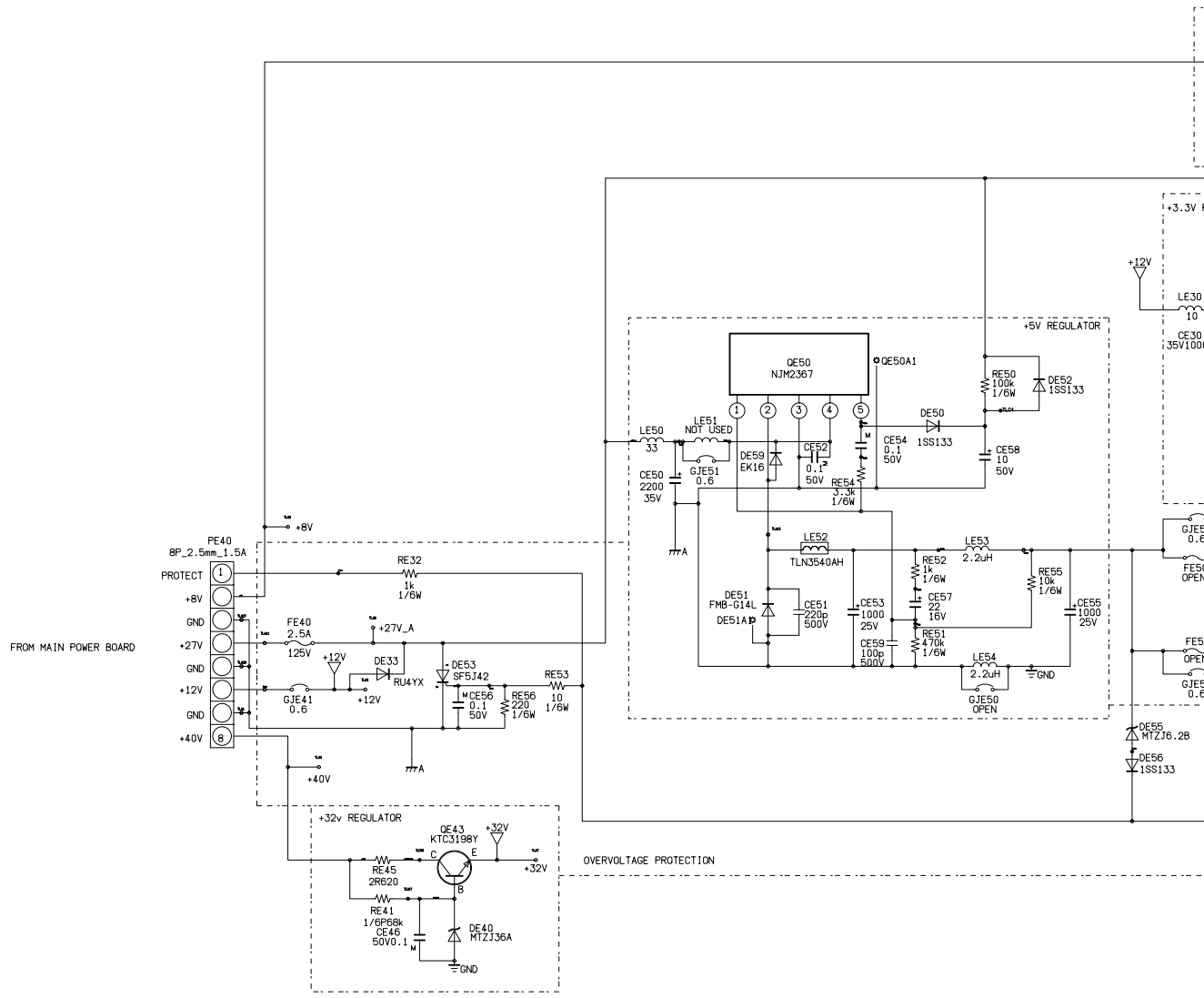

LIVE AREA
1-C1
AC+
1-C1
AC-
RE01
OPEN
DE01
OPEN
CE02
OPEN
CE03
OPEN
FE01
OPEN
CE01
OPEN
GND2
CE12
OPEN
LE02
OPEN
DE04
OPEN
RE08
OPEN
CE09
OPEN
CE08
OPEN
RE61
OPEN
QE01
OPEN
QE01B
QE01A
D
S/GND
Vcc
OCP/BD
FB/OLP
RTFC
DE10
OPEN
LE10
OPEN
RE10
OPEN
DE11
OPEN
CE10
OPEN
DE12
OPEN
RE06
OPEN
CE11
OPEN
RE07
OPEN
LE01
OPEN
CE04
OPEN
CE05
OPEN
GE02
OPEN
DE07
OPEN
RE05
OPEN
RE11
OPEN
DE03
OPEN
RE03
OPEN
RE04
OPEN
GND1
CE06
OPEN
CE13
OPEN
RE09
OPEN
CE14
OPEN
RE12
OPEN
CE15
OPEN
DE06
OPEN
CE07
OPEN
DE05
OPEN
QE02
OPEN

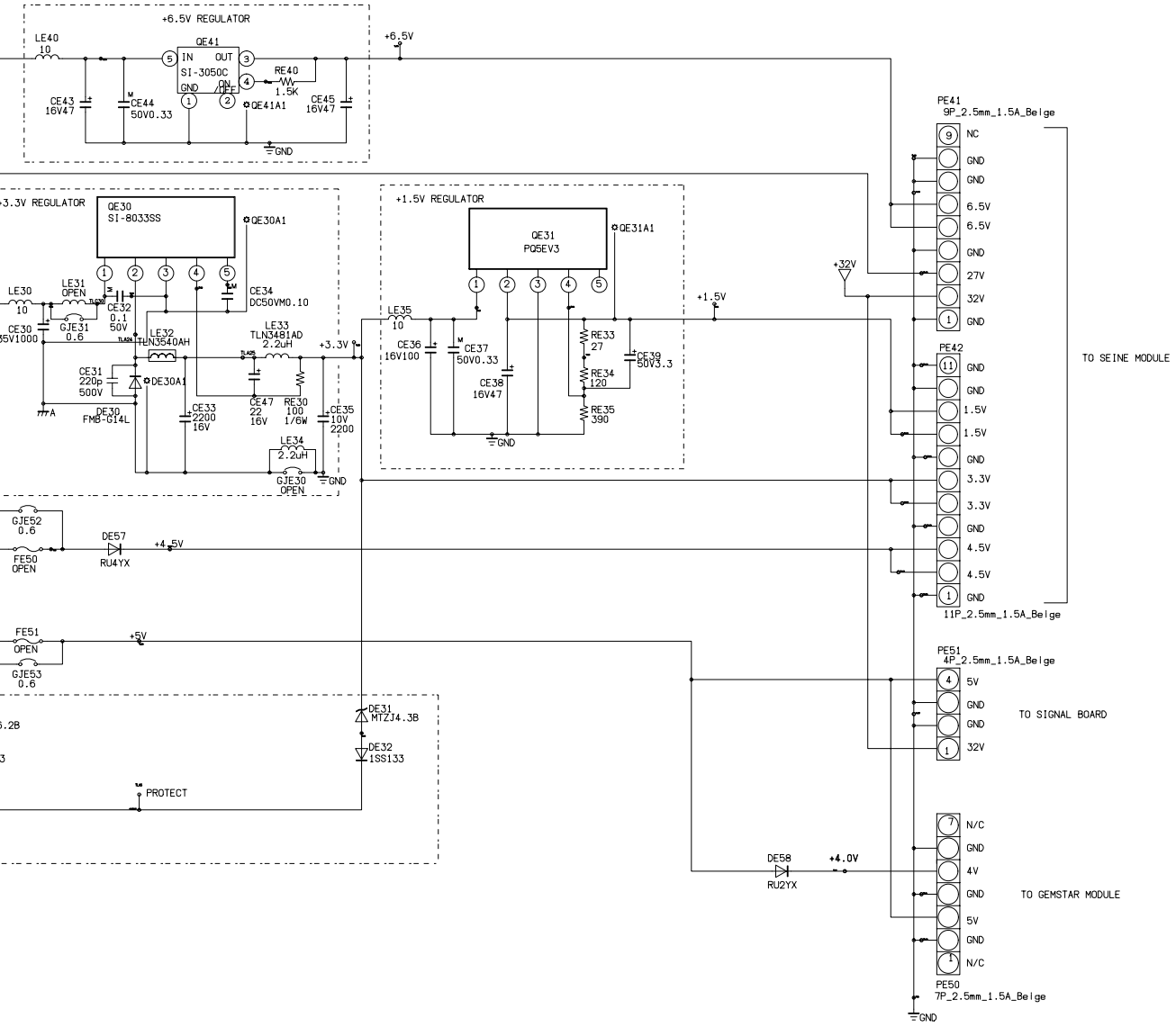


51HX93/57HX93/65HX93
POWER - (2/2)
[SHEET-2/2]

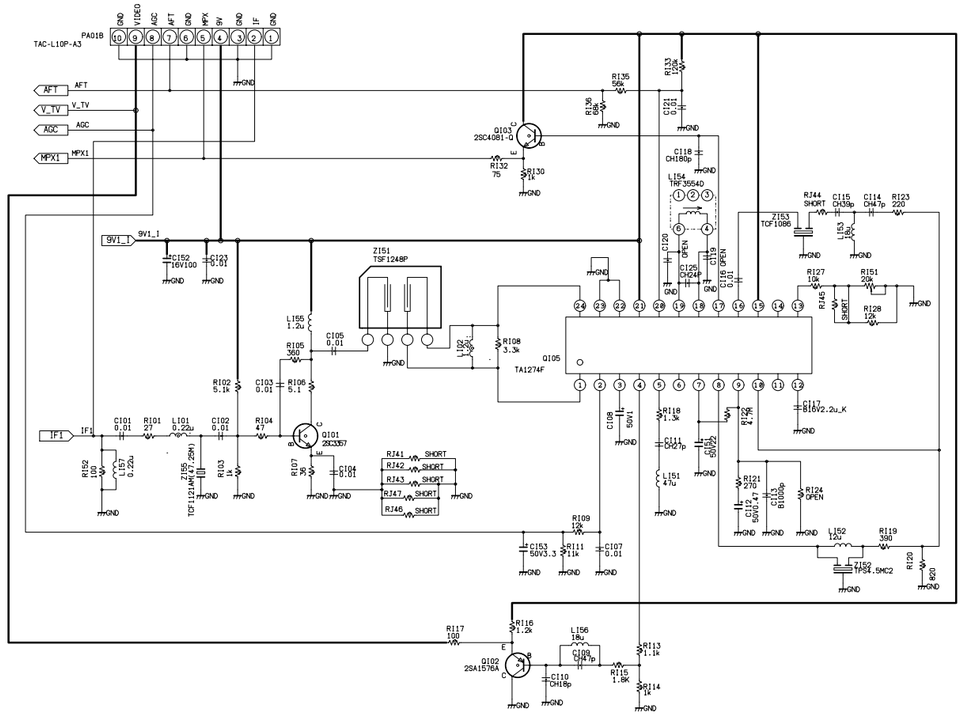


51HX93/57HX93/65HX93
SUB-POWER

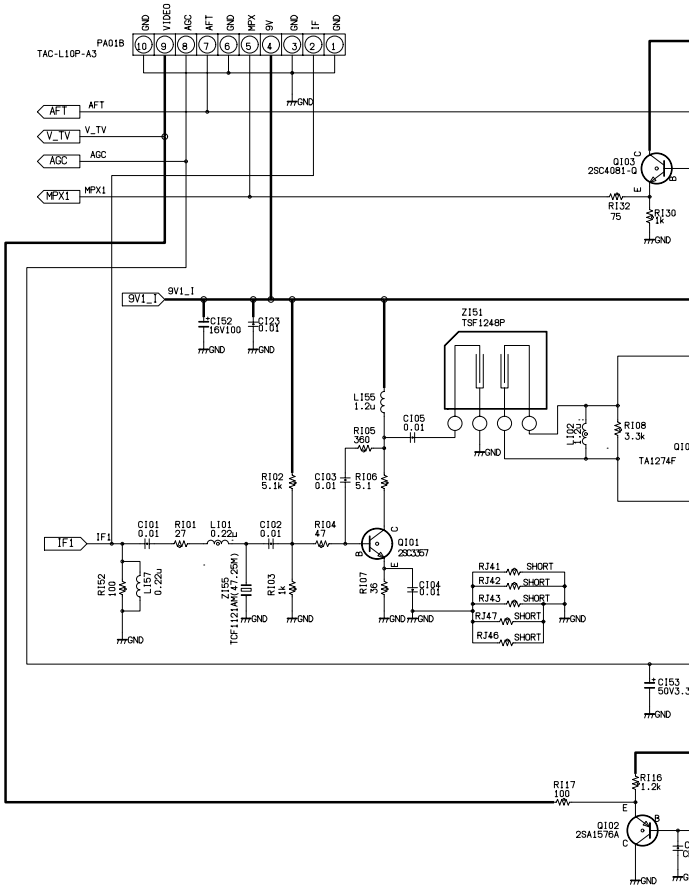

+5V REGULATOR
QE50
NJM2367
QE50A1
LE50
33
LE51
NOT USED
GJE51
0.6
DE59
EK16
CE52
0.1
50V
CE54
0.1
50V
DE50
1SS133
RE50
100k
1/6W
DE52
1SS133
CE58
10
50V
CE50
2200
35V
RE54
3.3k
1/6W
LE52
TLN3540AH
LE53
2.2uH
RE52
1k
1/6W
RE55
10k
1/6W
DE51
FMB-G14L
DE51A
CE51
220p
500V
CE53
1000
25V
CE57
22
16V
CE55
1000
25V
RE51
470k
1/6W
CE59
100p
500V
LE54
2.2uH
GJE50
OPEN
GND
+12V
LE30
10
CE30
35V100
+3.3V
GJE
0.6
FE5
OPEN
DE55
MTZJ6.2B
DE56
1SS133
+8V
PE40
8P_2.5mm_1.5A
PROTECT
+8V
GND
+27V
GND
+12V
GND
+40V
RE32
1k
1/6W
FE40
2.5A
125V
+27V_A
+12V
DE33
RU4YX
GJE41
0.6
DE53
SF5J42
CE56
0.1
50V
RE56
220
1/6W
RE53
10
1/6W
+40V
FROM MAIN POWER BOARD
+32v REGULATOR
QE43
KTC3198Y
+32V
RE45
2R620
RE41
1/6P68k
CE46
50V0.1
DE40
MTZJ36A
OVERVOLTAGE PROTECTION

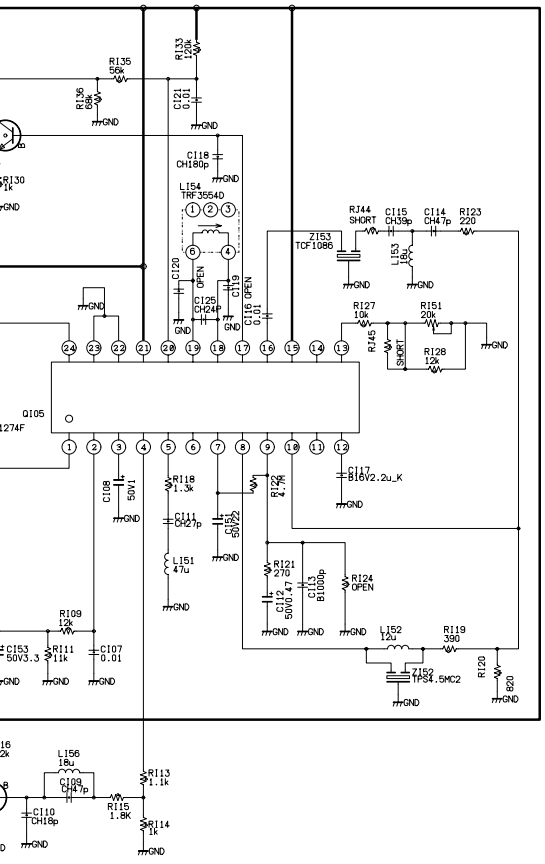


51HX93/57HX93/65HX93
SUB-POWER

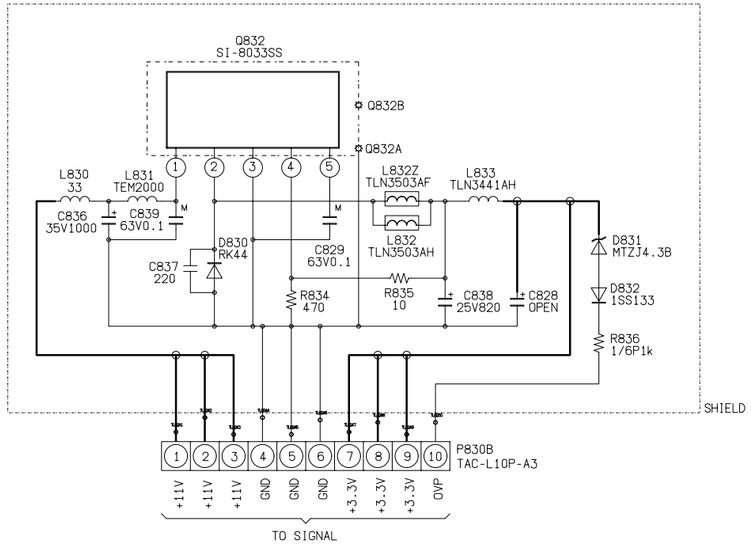


51HX93/57HX93/65HX93
IF

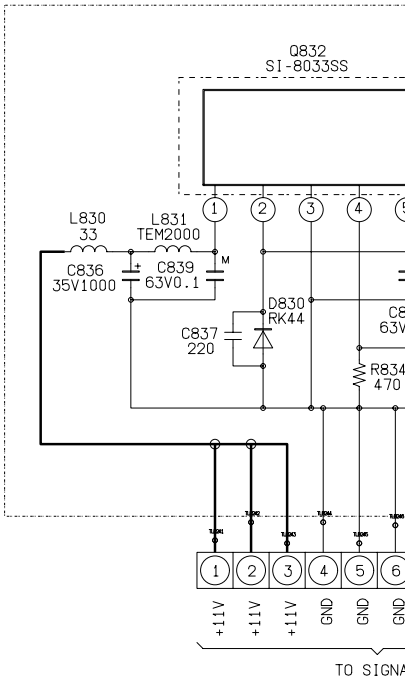

PA01B
TAC-L10P-A3
GND
VIDEO
AGC
AFT
GND
MPX
9V
GND
IF
GND
AFT
V_TV
AGC
MPX1
9V1_I
CI52
16V100
CI23
0.01
Z151
TSF1248P
L155
1.2u
CI05
0.01
RI05
360
RI02
5.1k
CI03
0.01
RI06
5.1
IF1
CI01
0.01
RI01
27
LI01
0.22u
CI02
0.01
RI04
47
Q101
2SD357
RI52
100
LI51
0.22u
Z155
TCF1121AM(47.25M)
RI03
1k
RI07
36
CI04
0.01
RJ41
SHORT
RJ42
SHORT
RJ43
SHORT
RJ47
SHORT
RJ46
SHORT
Q103
2SC4081-Q
RI32
75
RI30
1k
RI08
3.3k
TA1274F
CI53
50V3.3
RI16
1.2k
RI17
100
Q102
2SA1576A

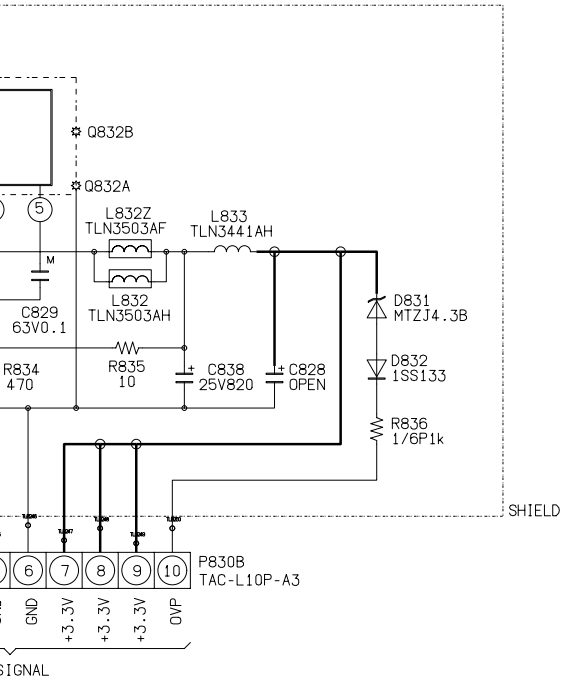


51HX93/57HX93/65HX93
IF



51HX93/57HX93/65HX93
DD-CON - (1/2)


Q832
SI-8033SS
L830
33
L831
TEM2000
C836
35V1000
C839
63V0.1
D830
RK44
C837
220
R834
470
1
2
3
4
5
6
+11V
+11V
+11V
GND
GND
GND
TO SIGNA

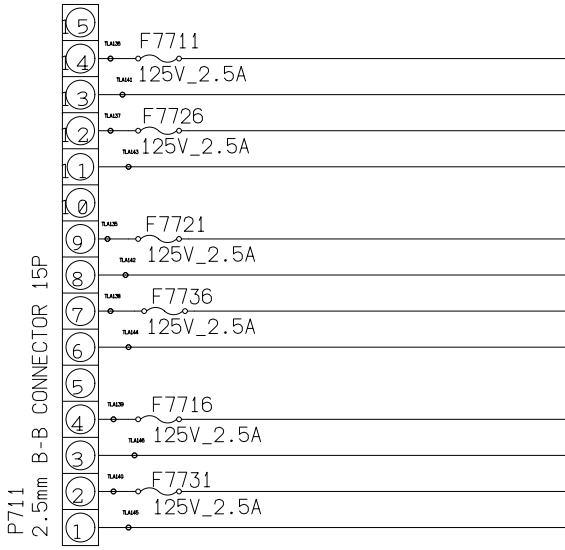


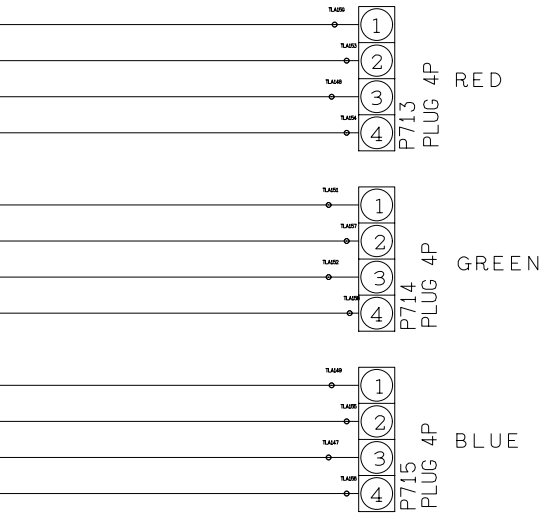
A

B

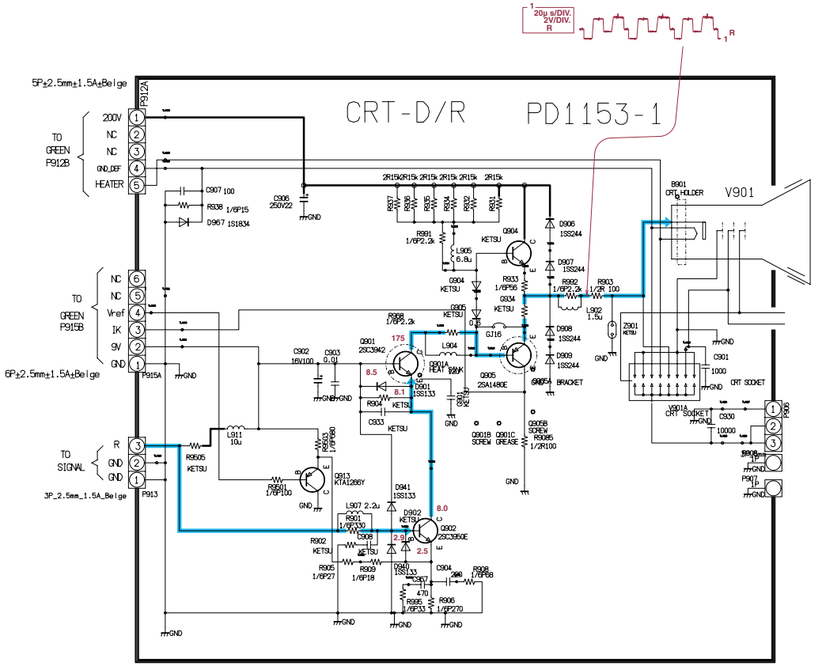
51HX93/57HX93/65HX93
DD-CON - (1/2)

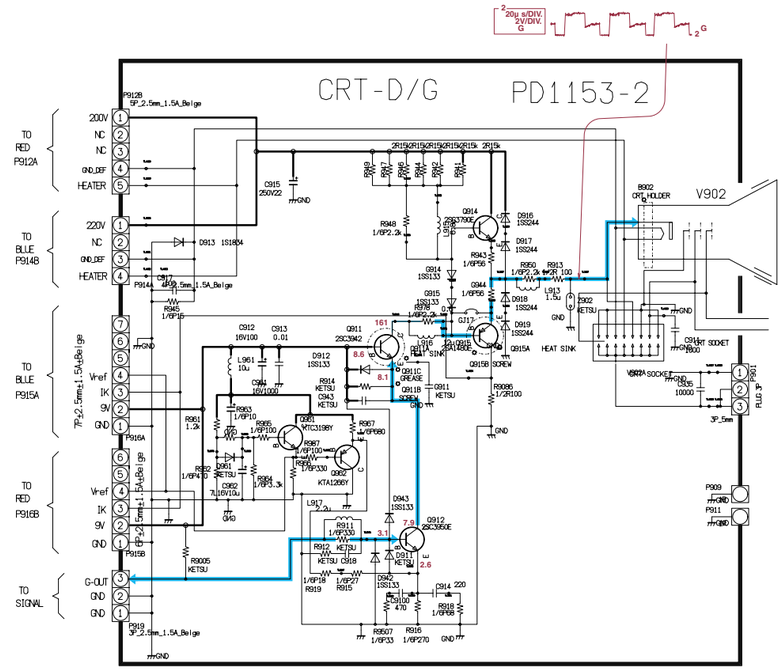
51HX93/57HX93/65HX93
CONVER-OUT - (2/2)

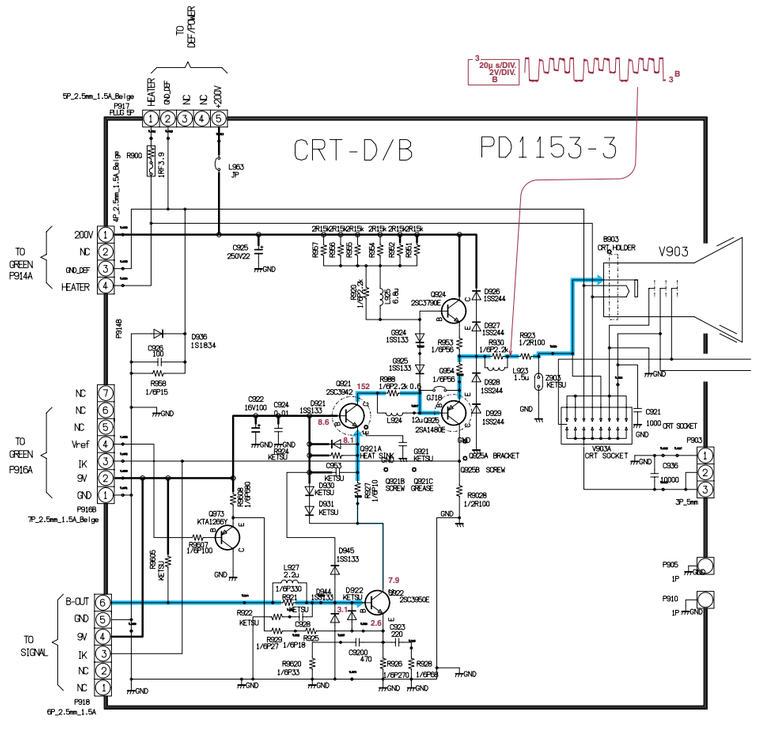

P711
2.5mm B-B CONNECTOR 15P
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
F7711
125V_2.5A
F7726
125V_2.5A
F7721
125V_2.5A
F7736
125V_2.5A
F7716
125V_2.5A
F7731
125V_2.5A



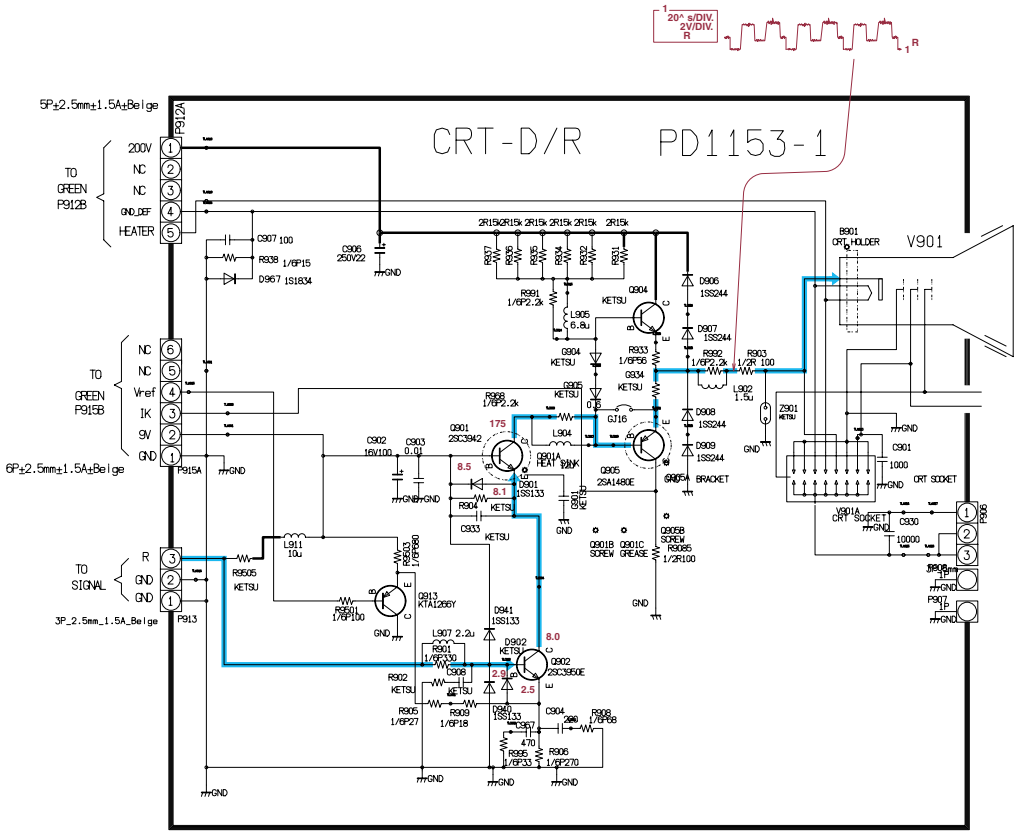
51HX93/57HX93/65HX93
CONVER-OUT - (2/2)

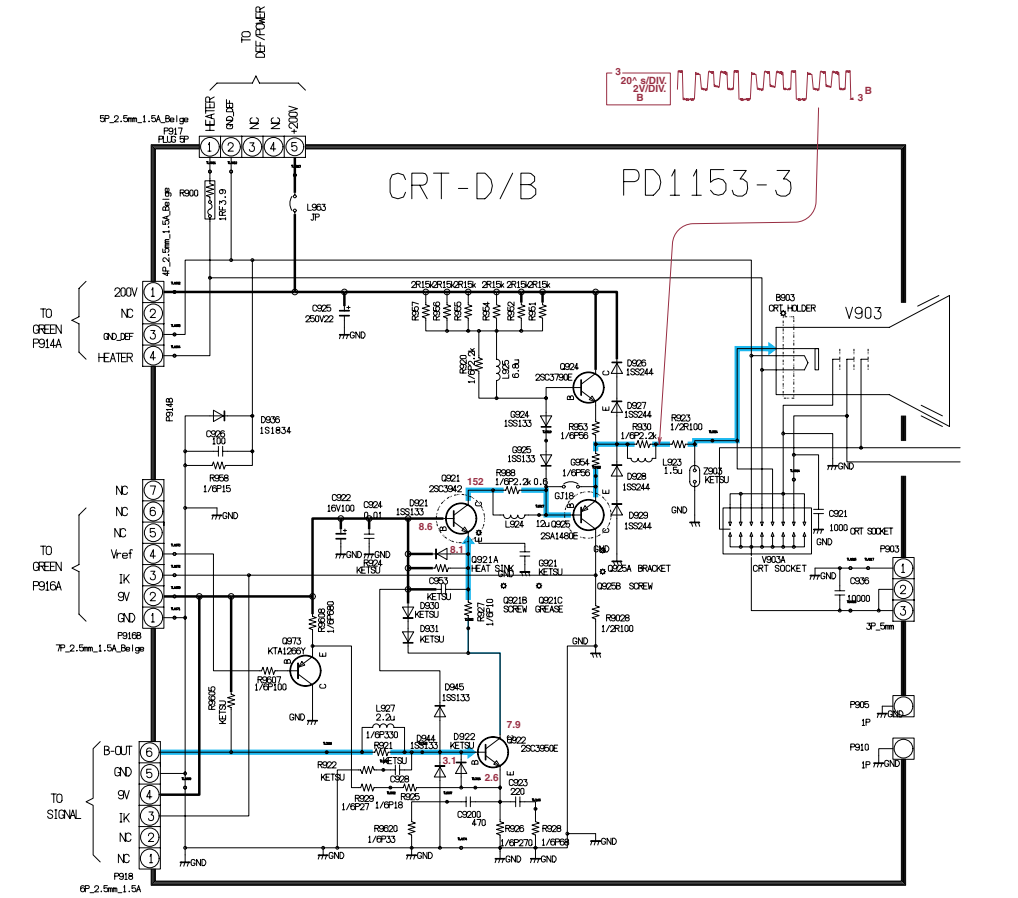


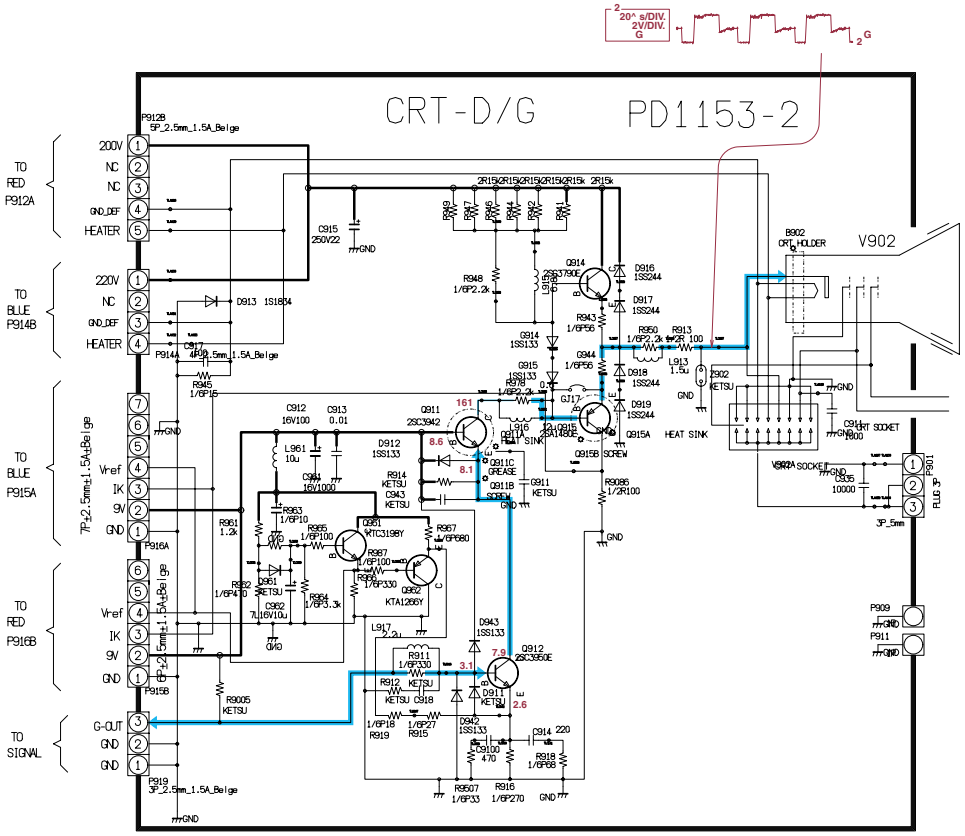




51HX93/57HX93/65HX93
CRTSVM - CRT-DRIVE
[SHEET-1/2]

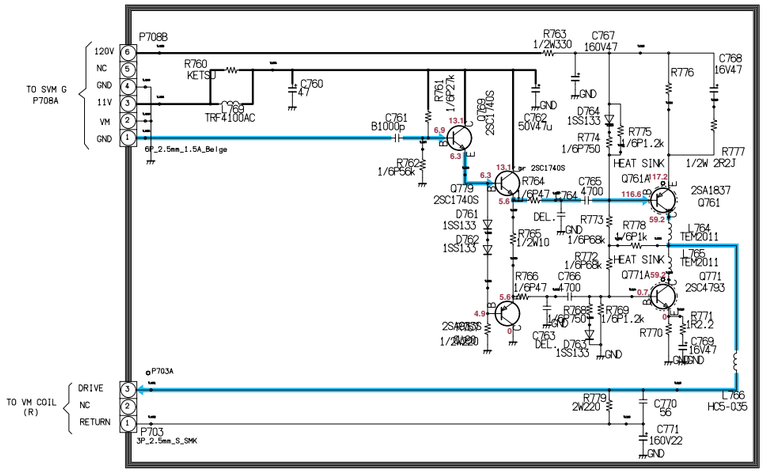

CRT-D/R PD1153-1
20^ s/DIV. 2V/DIV. R
V901
CRT SOCKET
BRACKET
5P±2.5mm±1.5A±Belge
6P±2.5mm±1.5A±Belge
3P_2.5mm_1.5A_Belge
TO GREEN P912B
TO GREEN P915B
TO SIGNAL
200V
NC
GND_DEF
HEATER
Vref
IK
9V
GND
R
P912A
P915A
P913
GND


CRT-D/B PD1153-3
20^ s/DIV. 2V/DIV. B
V903
CRT SOCKET
BRACKET
TO DEF/POWER
5P_2.5mm_1.5A_Belge
7P_2.5mm_1.5A_Belge
6P_2.5mm_1.5A
TO GREEN P914A
TO GREEN P916A
TO SIGNAL
HEATER
GND_DEF
NC
+200V
200V
Vref
IK
9V
GND
B-OUT
P917
P914B
P916B
P918

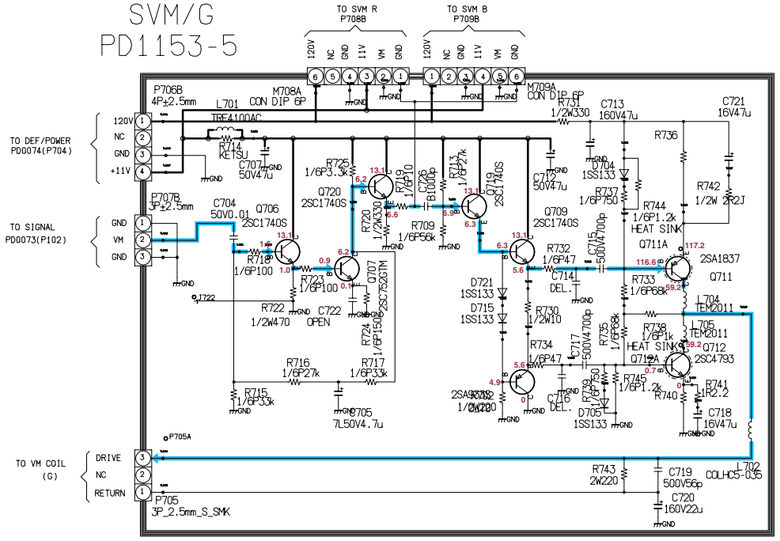


51HX93/57HX93/65HX93
CRTSVM - CRT-DRIVE
[SHEET-1/2]

SVM/R
PD1153-4



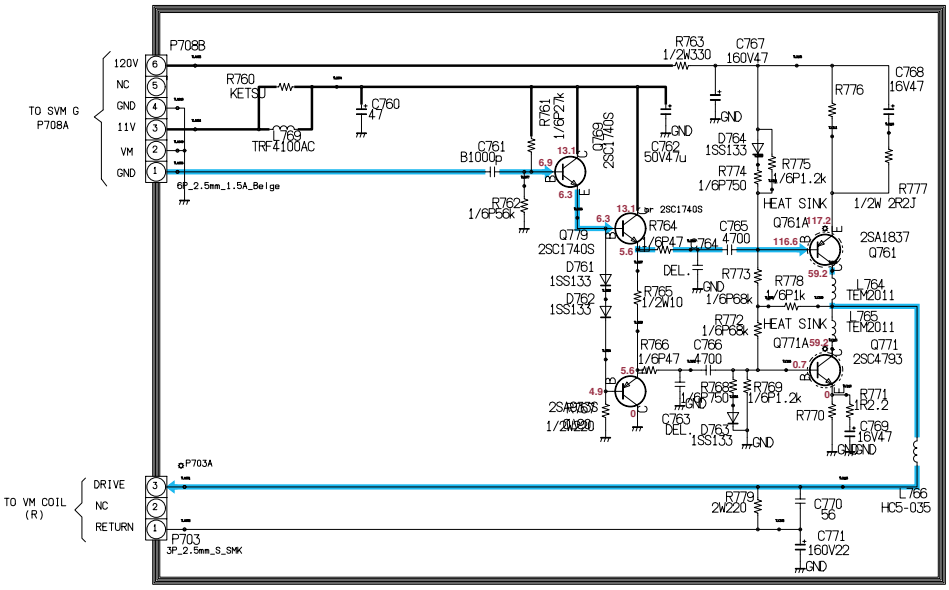
SVM/G
PD1153-5



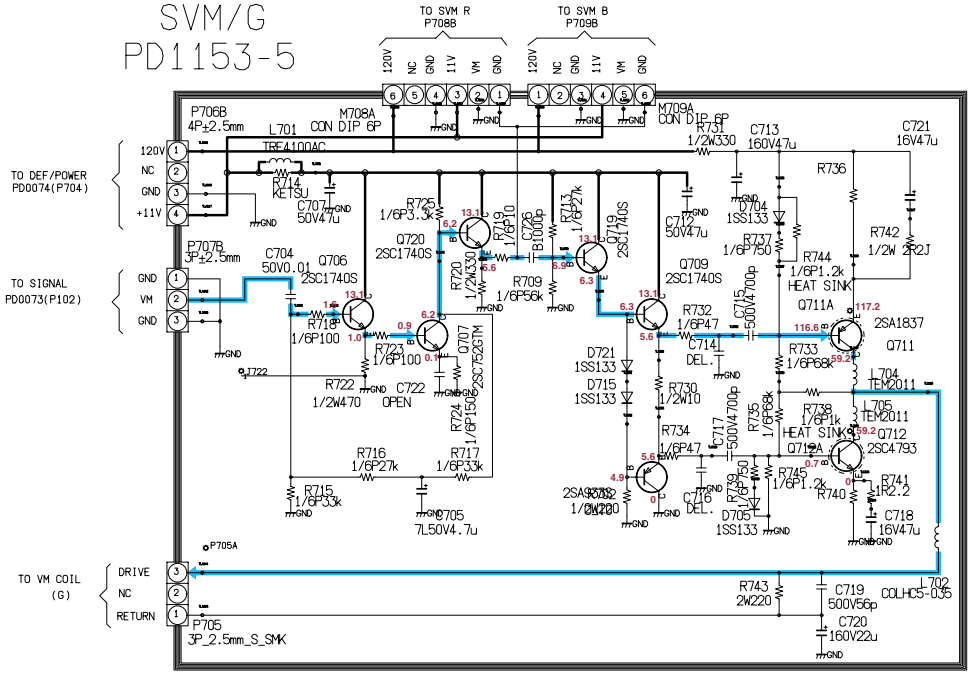
SVM/B
PD1153-6

51HX93/57HX93/65HX93
CRTSVM - SVM
[SHEET-2/2]

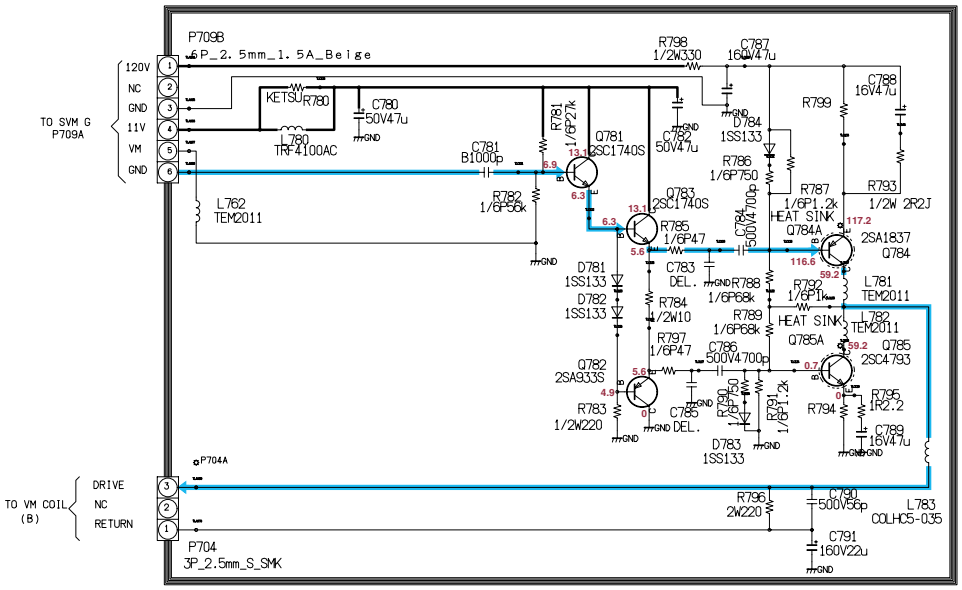
SVM/R
PD1153-4



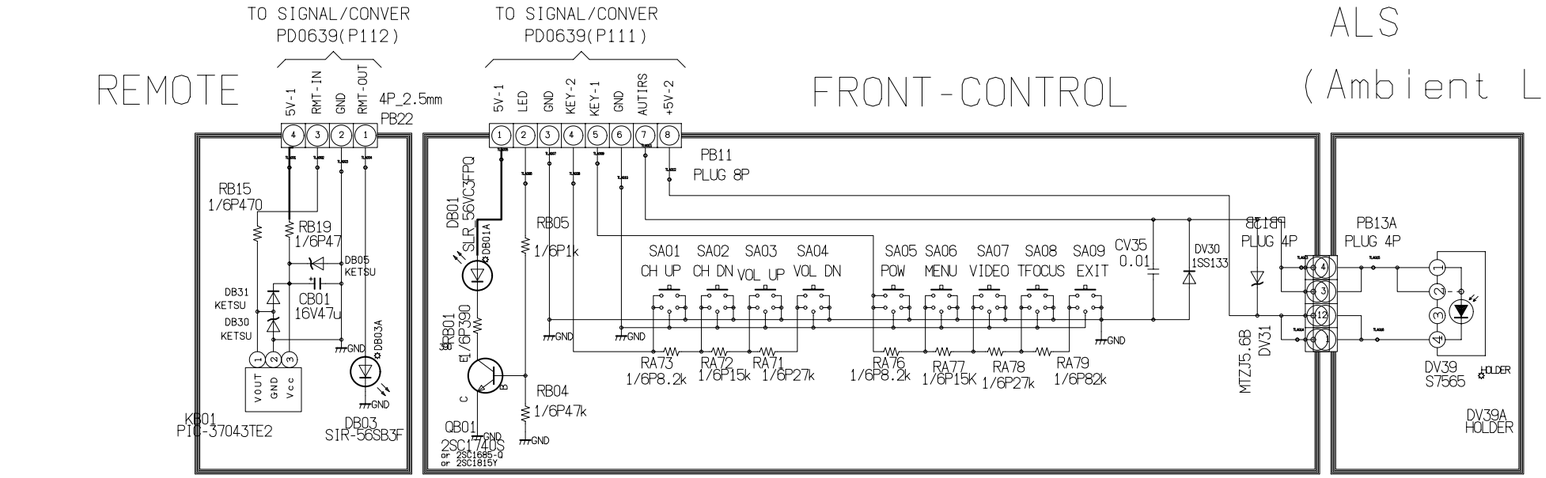
SVM/G
PD1153-5



SVM/B
PD1153-6



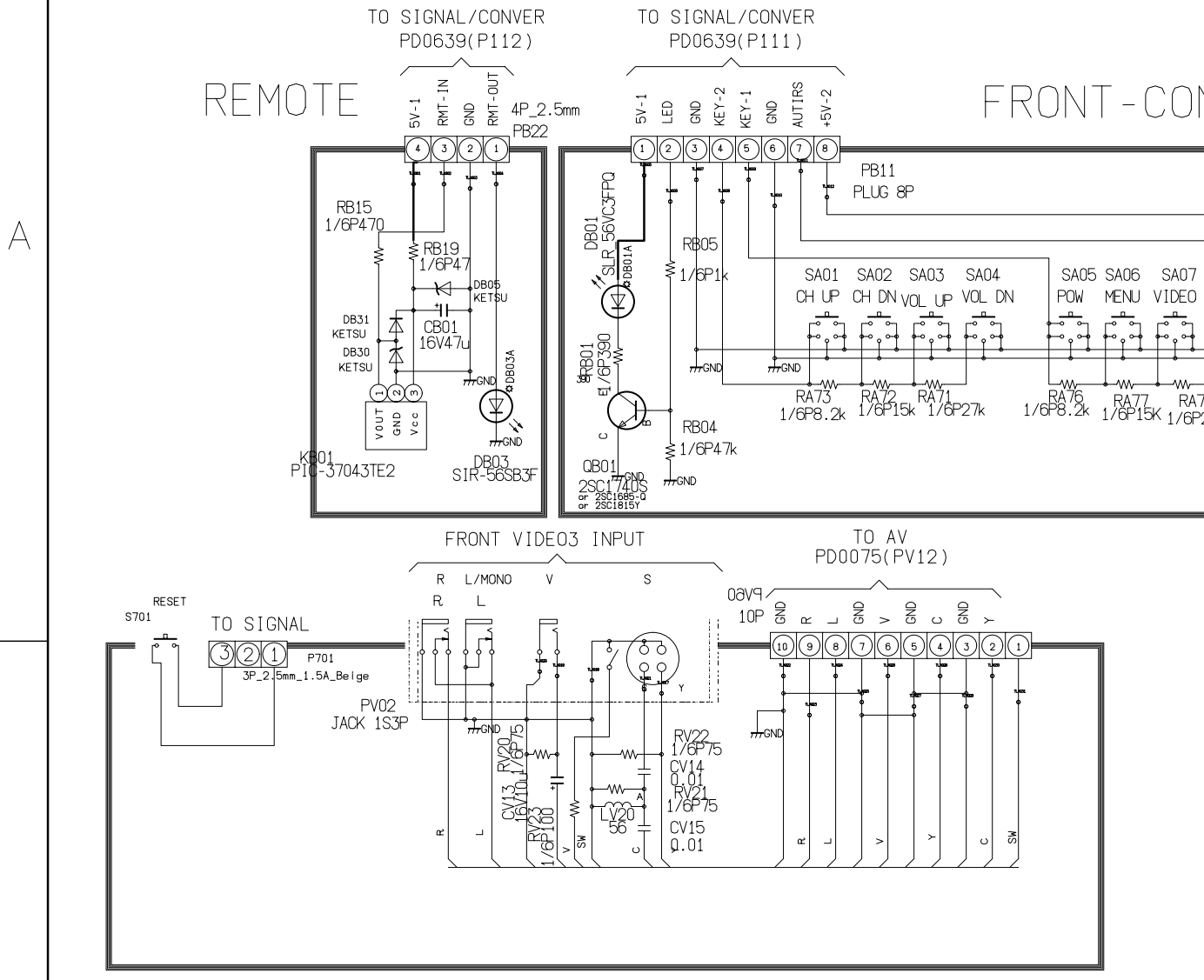
51HX93/57HX93/65HX93
CRTSVM - SVM
[SHEET-2/2]



FRONT-IN

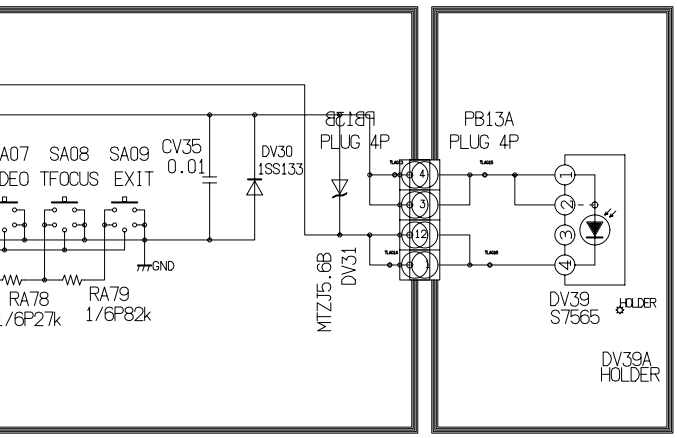
PCB NAME \ MODEL	42H82 42HDX82 50H82 50HDX82 57H82 57HDX82 65H82 65HDX82 (PD0081) (PD0221)
FRONT-CONTROL	Use
FRONT-IN	Use
REMOTE	Use
ALS	Use

51HX93/57HX93/65HX93
FRONT


TO SIGNAL/CONVER
PD0639(P112)
TO SIGNAL/CONVER
PD0639(P111)
REMOTE
FRONT-CON
5V-1
RMT-IN
GND
RMT-OUT
4P_2.5mm
PB22
5V-1
LED
GND
KEY-2
KEY-1
GND
AUTIRS
+5V-2
PB11
PLUG 8P
RB15
1/6P470
RB19
1/6P47
DB05
KETSU
CB01
16V47u
DB31
KETSU
DB30
KETSU
VOUT
GND
Vcc
DB03A
KB01
PIC-37043TE2
DB03
SIR-56SB3F
DB01
SLR-56VC3FPQ
DB01A
RB05
1/6P1k
RB01
1/6P390
QB01
2SC1740S
or 2SC1685-Q
or 2SC1815Y
RB04
1/6P47k
SA01
CH UP
SA02
CH DN
SA03
VOL UP
SA04
VOL DN
SA05
POW
SA06
MENU
SA07
VIDEO
RA73
1/6P8.2k
RA72
1/6P15k
RA71
1/6P27k
RA76
1/6P8.2k
RA77
1/6P15K
FRONT VIDEO3 INPUT
TO AV
PD0075(PV12)
RESET
S701
TO SIGNAL
P701
3P_2.5mm_1.5A_Beige
PV02
JACK 1S3P
R
L/MONO
V
S
10P
RV22
1/6P75
CV14
0.01
RV21
1/6P75
CV15
0.01
RV20
1/6P75
CV13
16V0.1
RV23
1/6P100
LV20
5K
FRONT-IN

ALS

ONTROL (Ambient Light Sensor)

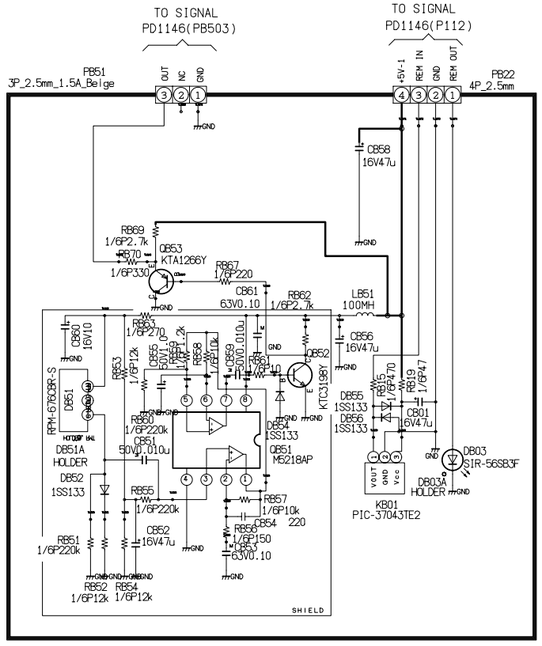


PCB NAME \ MODEL	42H82 50H82 57H82 65H82 (PD0081)	42HDX82 50HDX82 57HDX82 65HDX82 (PD0221)
FRONT-CONTROL	Use	
FRONT-IN	Use	
REMOTE	Use	
ALS	Use	

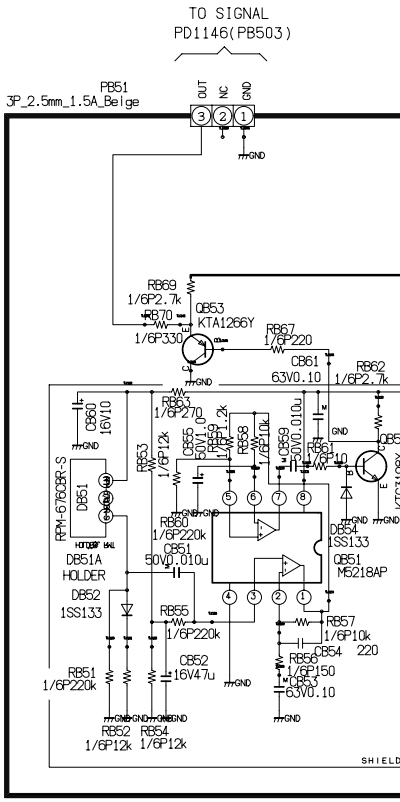
A

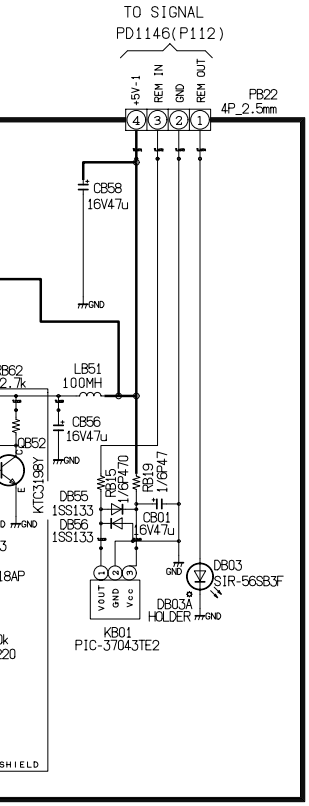
B

51HX93/57HX93/65HX93
FRONT

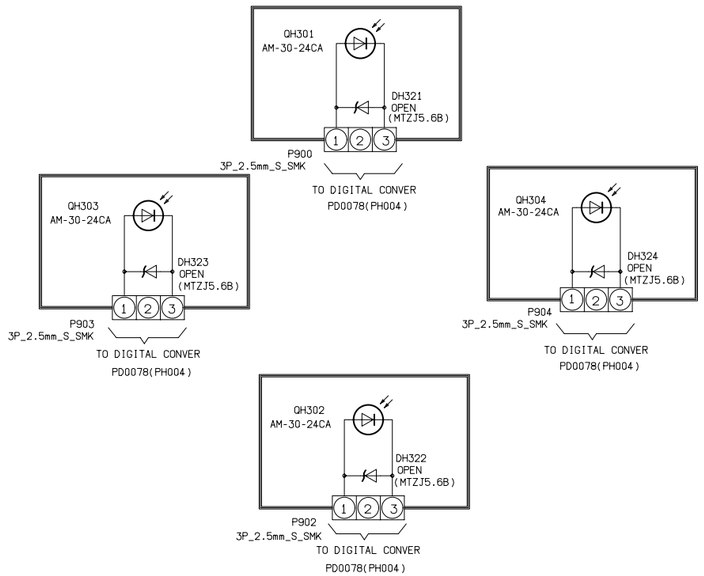


51HX93/57HX93/65HX93
IR BLASTER

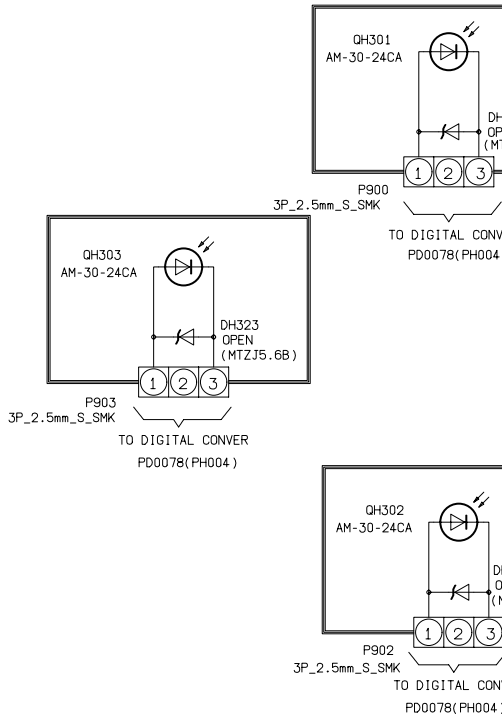

TO SIGNAL
PD1146(PB503)
PB51
3P_2.5mm_1.5A_Belge
OUT
NC
GND
RB69
1/6P2.7k
RB70
1/6P330
QB53
KTA1266Y
RB67
1/6P220
CB61
63V0.10
RB62
1/6P2.7k
RB63
1/6P270
CB60
16V10
RB53
1/6P12k
CB55
50V1.0
RB59
1/6P1.2k
RB58
1/6P10k
CB59
50V0.010u
RB61
1/6P10
RPM-676DBR-S
DB51
DB51A
HOLDER
DB52
1SS133
RB60
1/6P220k
CB51
50V0.010u
DB54
1SS133
QB51
MS218AP
RB55
1/6P220k
RB57
1/6P10k
CB54
220
RB56
1/6P150
CB53
63V0.10
RB51
1/6P220k
CB52
16V47u
RB52
1/6P12k
RB54
1/6P12k
SHIELD

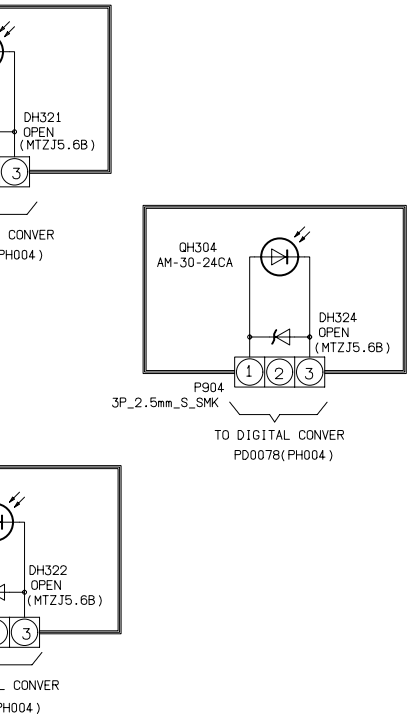


51HX93/57HX93/65HX93
IR BLASTER



51HX93/57HX93/65HX93
T.FOCUS-SENSOR

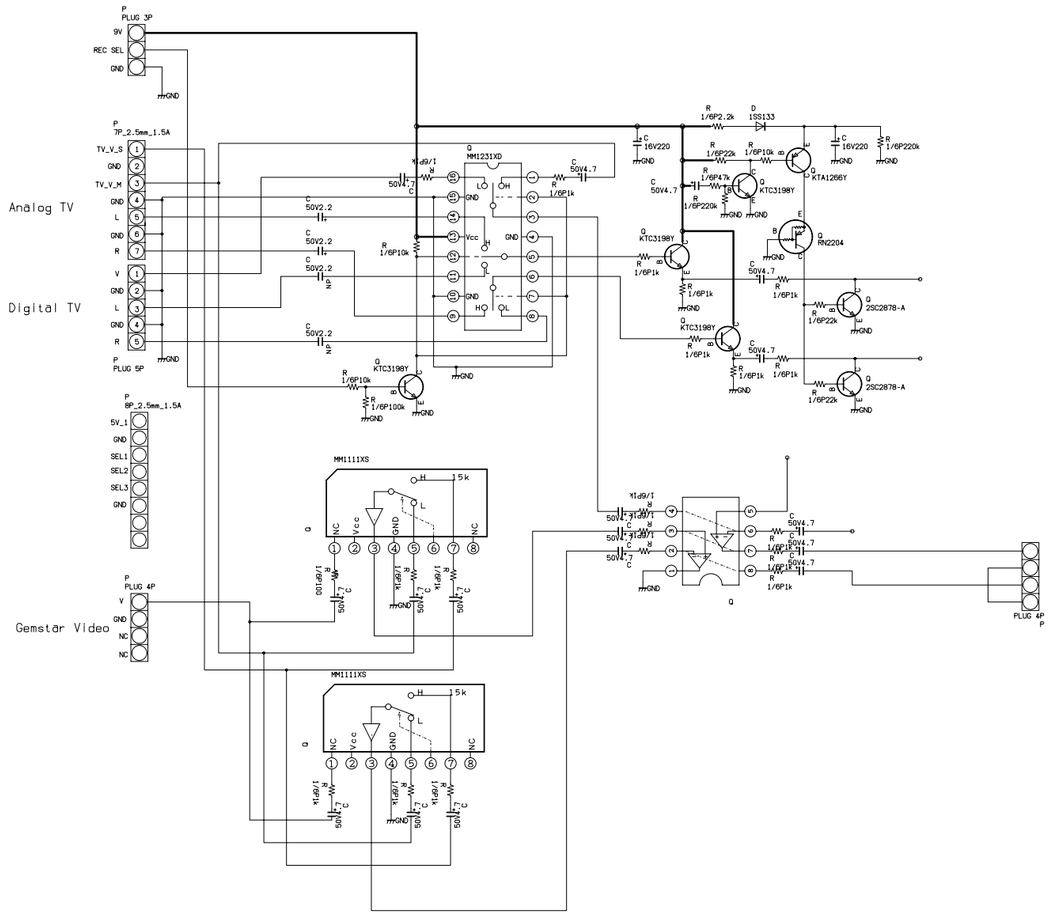

QH301
AM-30-24CA
DH
OP
(MT
1
2
3
P900
3P_2.5mm_S_SMK
TO DIGITAL CONV
PD0078(PH004
QH303
AM-30-24CA
DH323
OPEN
(MTZJ5.6B)
1
2
3
P903
3P_2.5mm_S_SMK
TO DIGITAL CONVER
PD0078(PH004)
QH302
AM-30-24CA
D
O
(M
1
2
3
P902
3P_2.5mm_S_SMK
TO DIGITAL CON
PD0078(PH004



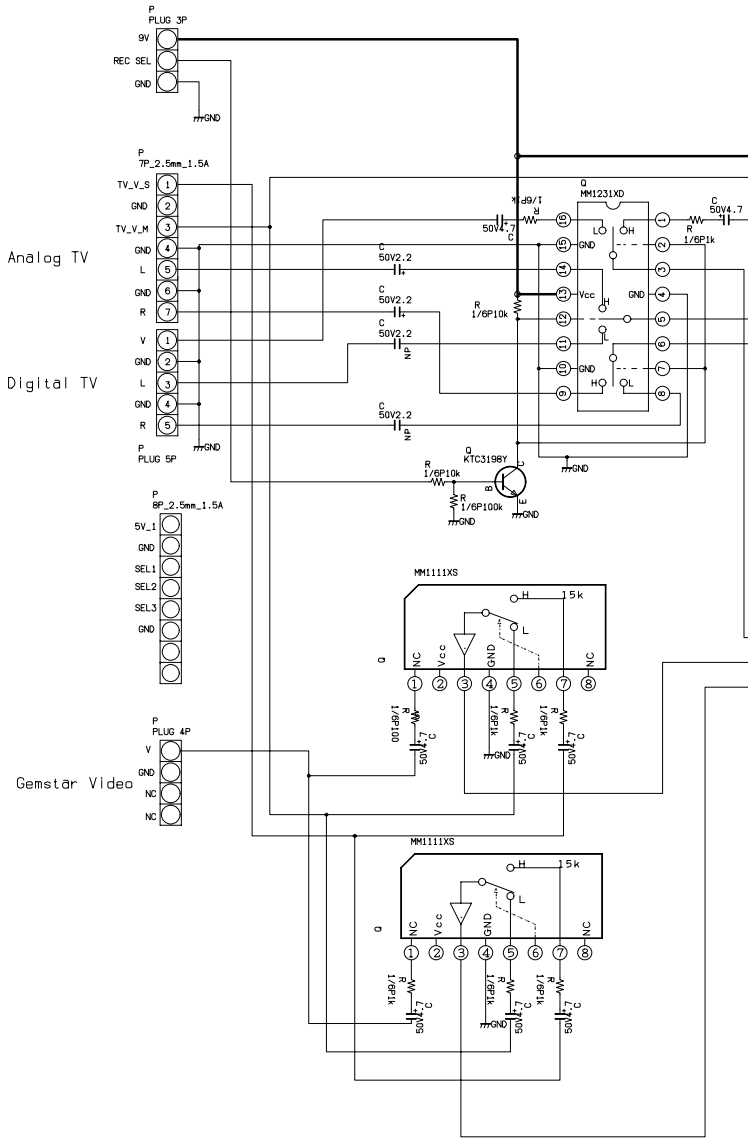
A

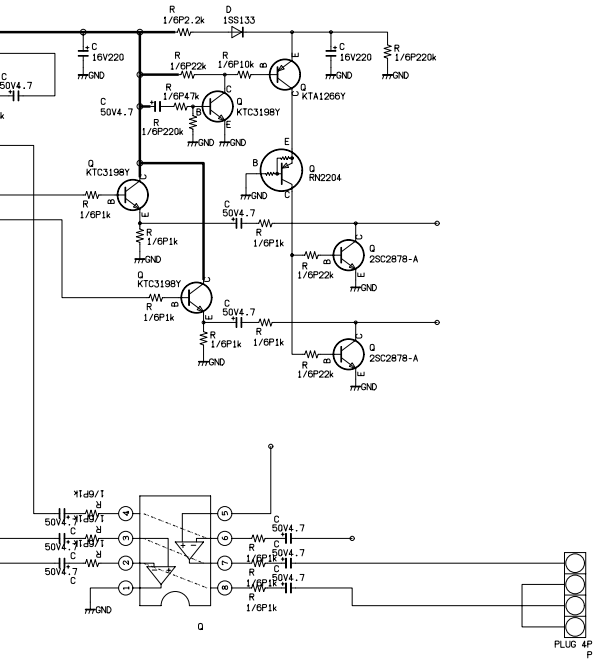
B

51HX93/57HX93/65HX93
T.FOCUS-SENSOR

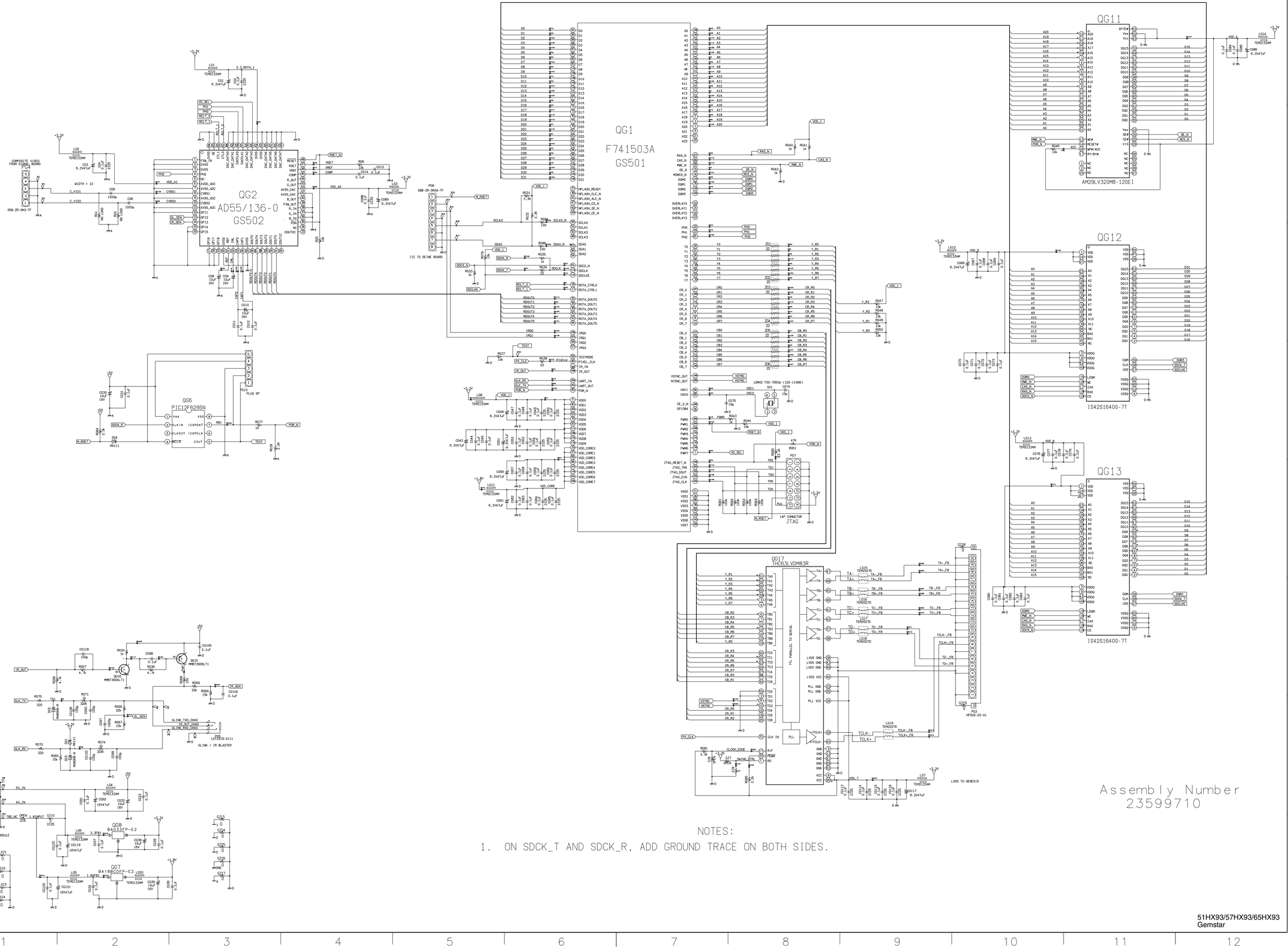


51HX93/57HX93/65HX93
REC OUT


P
PLUG 3P
9V
REC SEL
GND
GND
P
7P_2.5mm_1.5A
TV_V_S
GND
TV_V_M
GND
L
GND
R
Analog TV
V
GND
L
GND
R
Digital TV
P
PLUG 5P
GND
P
8P_2.5mm_1.5A
5V_1
GND
SEL1
SEL2
SEL3
GND
P
PLUG 4P
V
GND
NC
NC
Gemstar Video
Q
MM1231XD
Vcc
GND
LO
H
L
Q
KTC3198Y
R
1/6P10k
R
1/6P100k
C
50V2.2
NP
C
50V4.7
MM1111XS
15k
NC
Vcc
GND
R
1/6P1k
C
50V4.7

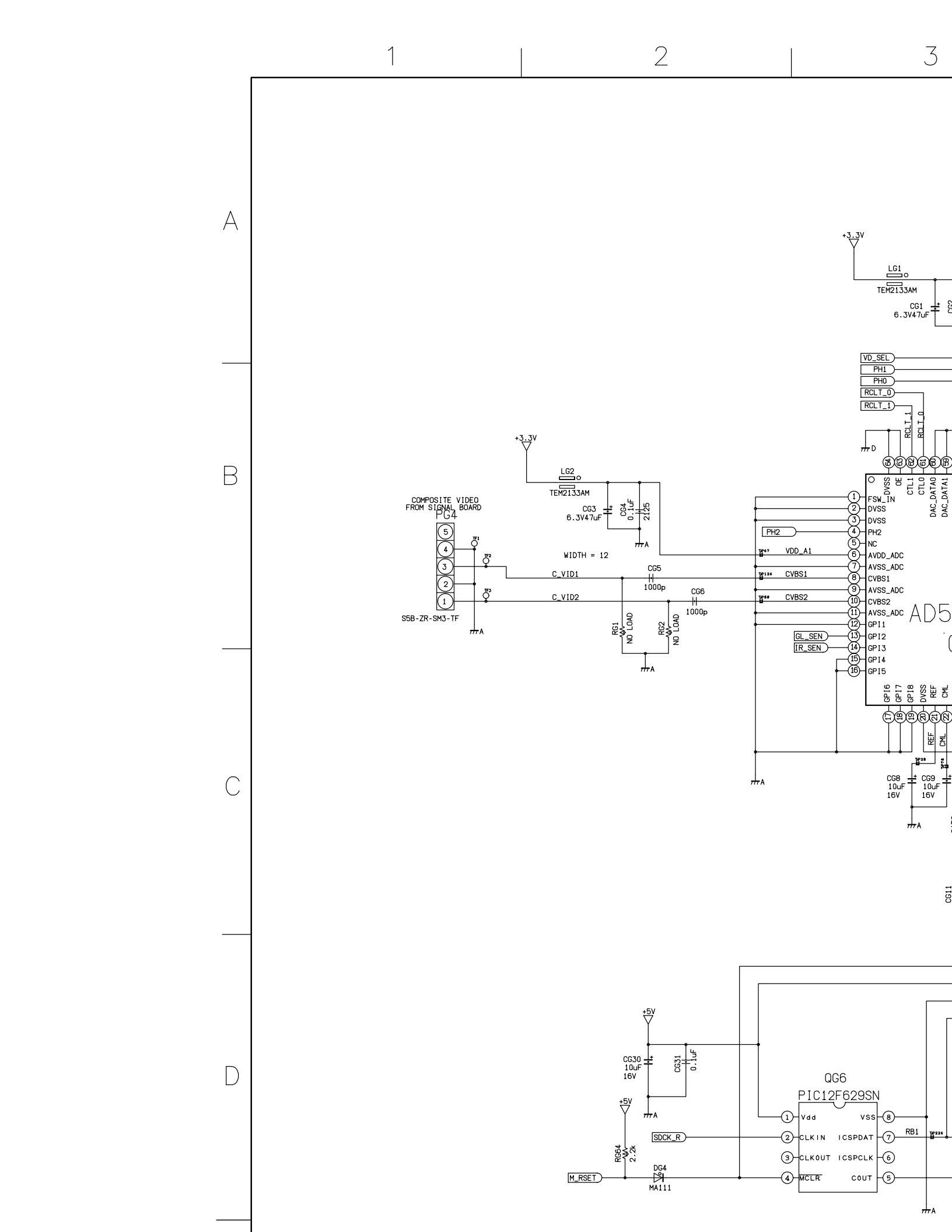


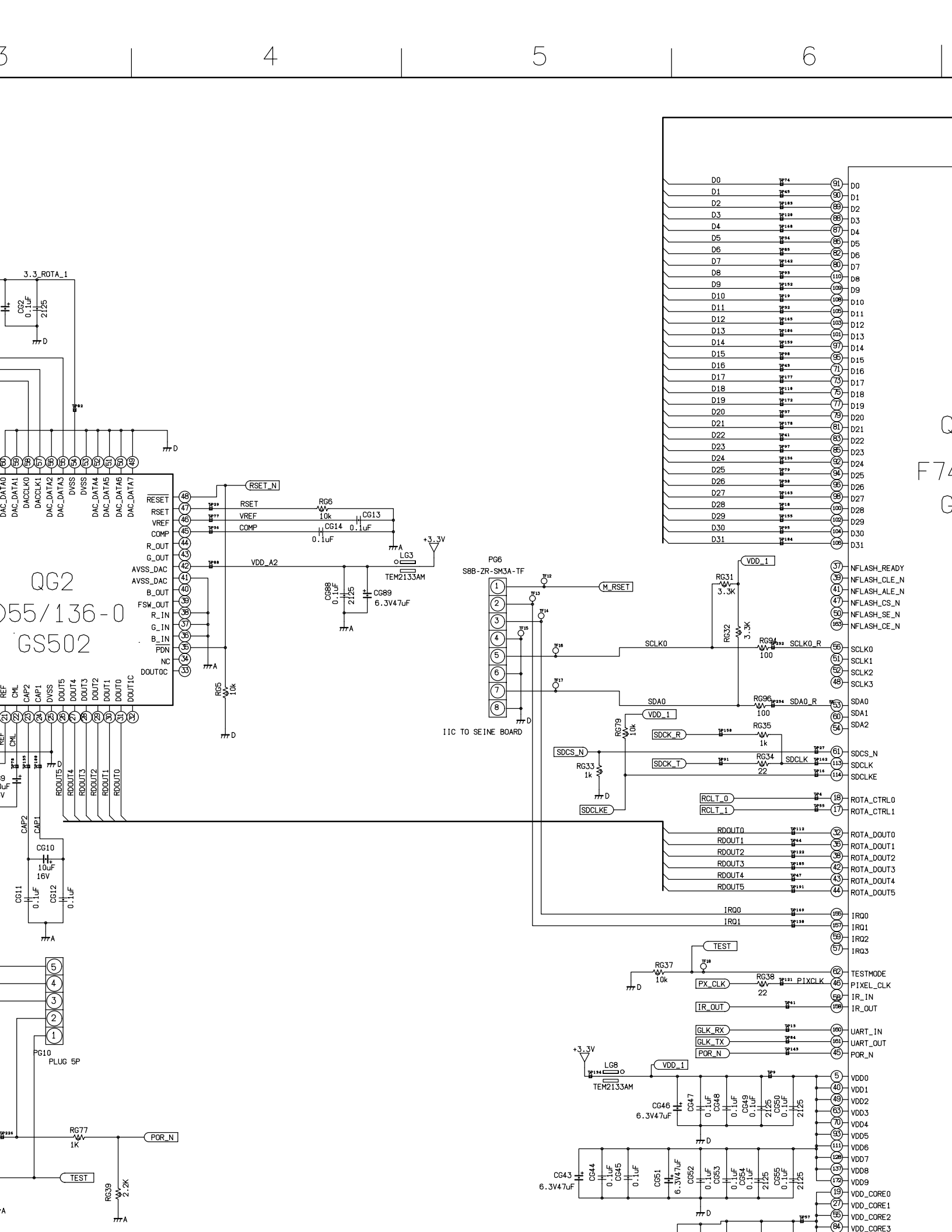
51HX93/57HX93/65HX93
REC OUT



NOTES:

1. ON SDCK_T AND SDCK_R, ADD GROUND TRACE ON BOTH SIDES.

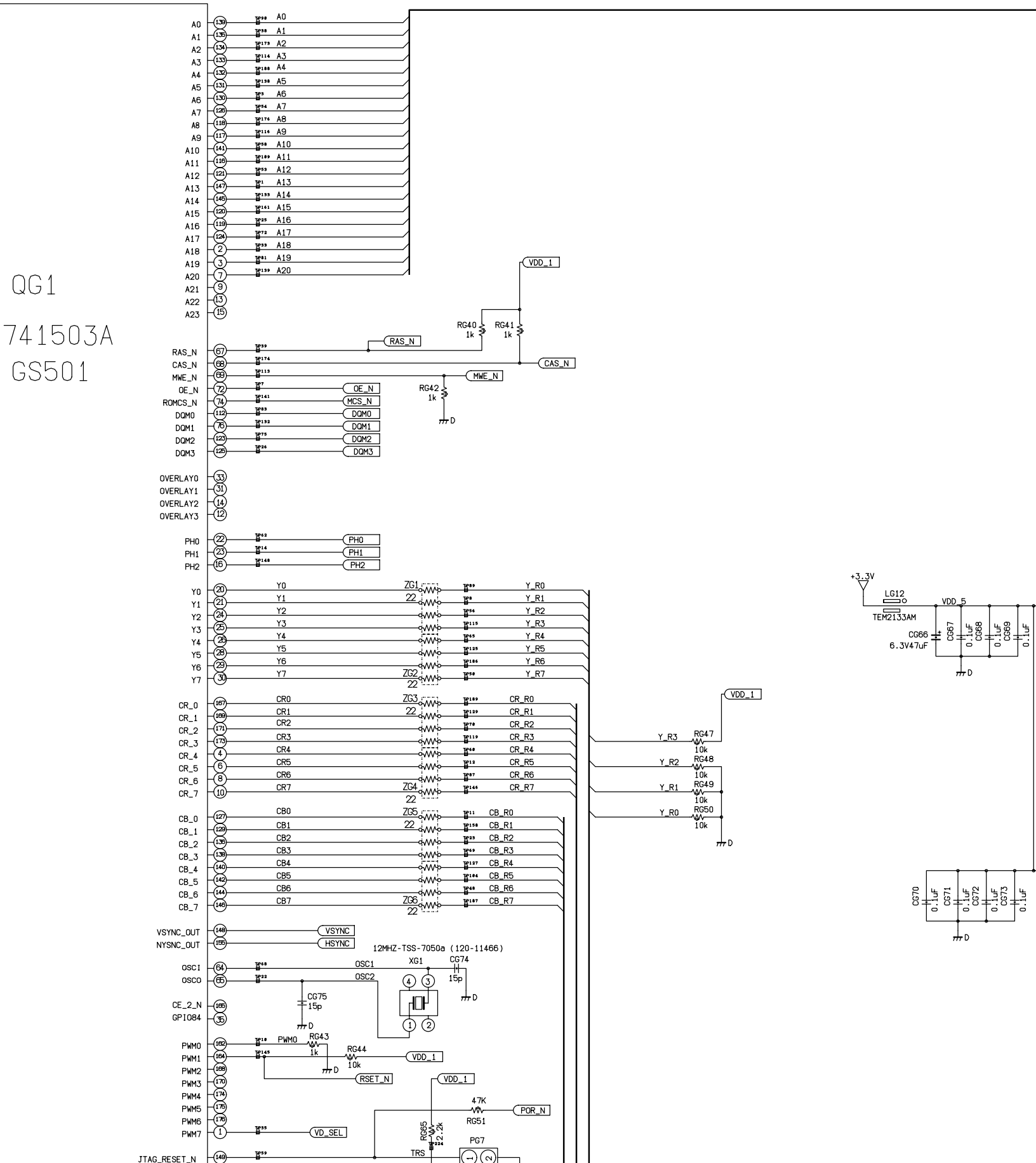

1
2
3
A
B
C
D
+3.3V
LG1
TEM2133AM
CG1
6.3V47uF
VD_SEL
PH1
PH0
RCLT_0
RCLT_1
RCLT_1
RCLT_0
D
+3.3V
LG2
TEM2133AM
CG3
6.3V47uF
CG4
0.1uF
2125
COMPOSITE VIDEO
FROM SIGNAL BOARD
PG4
S5B-ZR-SM3-TF
WIDTH = 12
C_VID1
C_VID2
CG5
1000p
CG6
1000p
RG1
NO LOAD
RG2
NO LOAD
PH2
VDD_A1
CVBS1
CVBS2
GL_SEN
IR_SEN
FSW_IN
DVSS
DVSS
PH2
NC
AVDD_ADC
AVSS_ADC
CVBS1
AVSS_ADC
CVBS2
AVSS_ADC
GPI1
GPI2
GPI3
GPI4
GPI5
GPI6
GPI7
GPI8
DVSS
REF
CML
DVSS
OE
CTL1
CTL0
DAC_DATA0
DAC_DATA1
AD5
CG8
10uF
16V
CG9
10uF
16V
CG11
+5V
CG30
10uF
16V
CG31
0.1uF
+5V
RG64
2.2k
SDCK_R
M_RSET
DG4
MA111
QG6
PIC12F629SN
Vdd
CLKIN
CLKOUT
MCLR
VSS
ICSPDAT
ICSPCLK
COUT
RB1

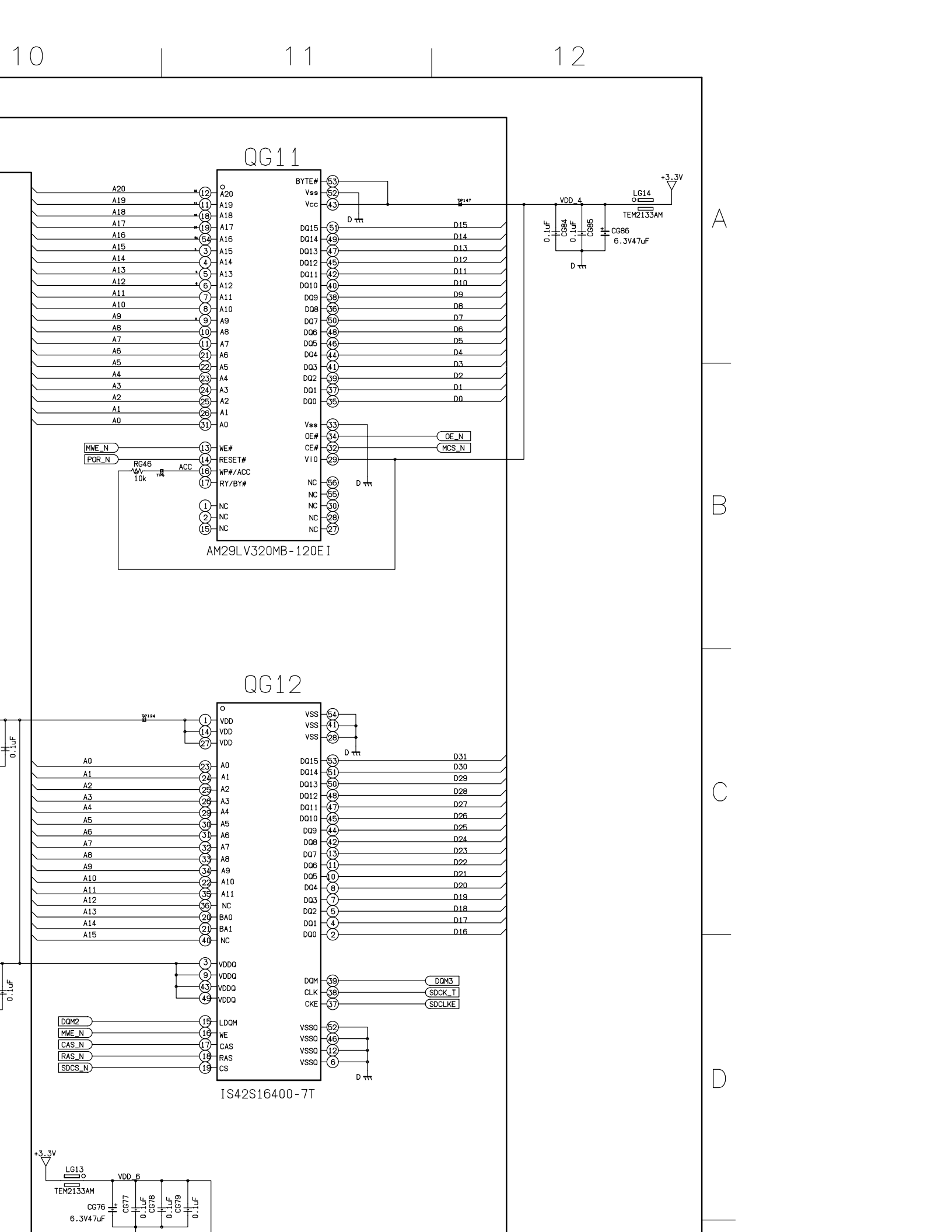

3
4
5
6
3.3_ROTA_1
CG2
0.1uF
2125
QG2
D055/136-0
GS502
DAC_DATA0
DAC_DATA1
DACCLK0
DACCLK1
DAC_DATA2
DAC_DATA3
DVSS
DVSS
DAC_DATA4
DAC_DATA5
DAC_DATA6
DAC_DATA7
RESET
RSET
VREF
COMP
R_OUT
G_OUT
AVSS_DAC
AVSS_DAC
B_OUT
FSW_OUT
R_IN
G_IN
B_IN
PDN
NC
DOUT0C
RSET_N
RG6
10k
CG13
0.1uF
CG14
0.1uF
VDD_A2
LG3
TEM2133AM
+3.3V
CG88
0.1uF
CG89
6.3V47uF
RG5
10k
REF
CML
CAP2
CAP1
DVSS
DOUT5
DOUT4
DOUT3
DOUT2
DOUT1
DOUT0
DOUT1C
RDOUT5
RDOUT4
RDOUT3
RDOUT2
RDOUT1
RDOUT0
CG10
10uF
16V
CG11
0.1uF
CG12
0.1uF
PG10
PLUG 5P
RG77
1K
POR_N
TEST
RG39
2.2K
PG6
S8B-ZR-SM3A-TF
M_RESET
IIC TO SEINE BOARD
VDD_1
RG31
3.3K
RG32
3.3K
SCLK0
RG94
100
SCLK0_R
SDA0
RG96
100
SDA0_R
RG79
10k
SDCK_R
RG35
1k
SDCS_N
RG33
1k
SDCK_T
RG34
22
SDCLK
SDCLKE
RCLT_0
RCLT_1
ROTA_CTRL0
ROTA_CTRL1
RDOUT0
RDOUT1
RDOUT2
RDOUT3
RDOUT4
RDOUT5
ROTA_DOUT0
ROTA_DOUT1
ROTA_DOUT2
ROTA_DOUT3
ROTA_DOUT4
ROTA_DOUT5
IRQ0
IRQ1
IRQ2
IRQ3
TEST
RG37
10k
TESTMODE
PX_CLK
RG38
22
PIXEL_CLK
IR_IN
IR_OUT
GLK_RX
GLK_TX
POR_N
UART_IN
UART_OUT
+3.3V
LG8
TEM2133AM
VDD_1
CG46
6.3V47uF
CG47
0.1uF
CG48
0.1uF
CG49
0.1uF
CG50
0.1uF
2125
CG43
6.3V47uF
CG44
0.1uF
CG45
0.1uF
CG51
6.3V47uF
CG52
0.1uF
CG53
0.1uF
CG54
0.1uF
CG55
0.1uF
2125
VDD0
VDD1
VDD2
VDD3
VDD4
VDD5
VDD6
VDD7
VDD8
VDD9
VDD_CORE0
VDD_CORE1
VDD_CORE2
VDD_CORE3
NFLASH_READY
NFLASH_CLE_N
NFLASH_ALE_N
NFLASH_CS_N
NFLASH_SE_N
NFLASH_CE_N
SCLK0
SCLK1
SCLK2
SCLK3
SDA0
SDA1
SDA2
SDCS_N
SDCLK
SDCLKE
ROTA_CTRL0
ROTA_CTRL1
ROTA_DOUT0
ROTA_DOUT1
ROTA_DOUT2
ROTA_DOUT3
ROTA_DOUT4
ROTA_DOUT5
IRQ0
IRQ1
IRQ2
IRQ3
TESTMODE
PIXEL_CLK
IR_IN
IR_OUT
UART_IN
UART_OUT
POR_N
VDD0
VDD1
VDD2
VDD3
VDD4
VDD5
VDD6
VDD7
VDD8
VDD9
VDD_CORE0
VDD_CORE1
VDD_CORE2
VDD_CORE3
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
D16
D17
D18
D19
D20
D21
D22
D23
D24
D25
D26
D27
D28
D29
D30
D31

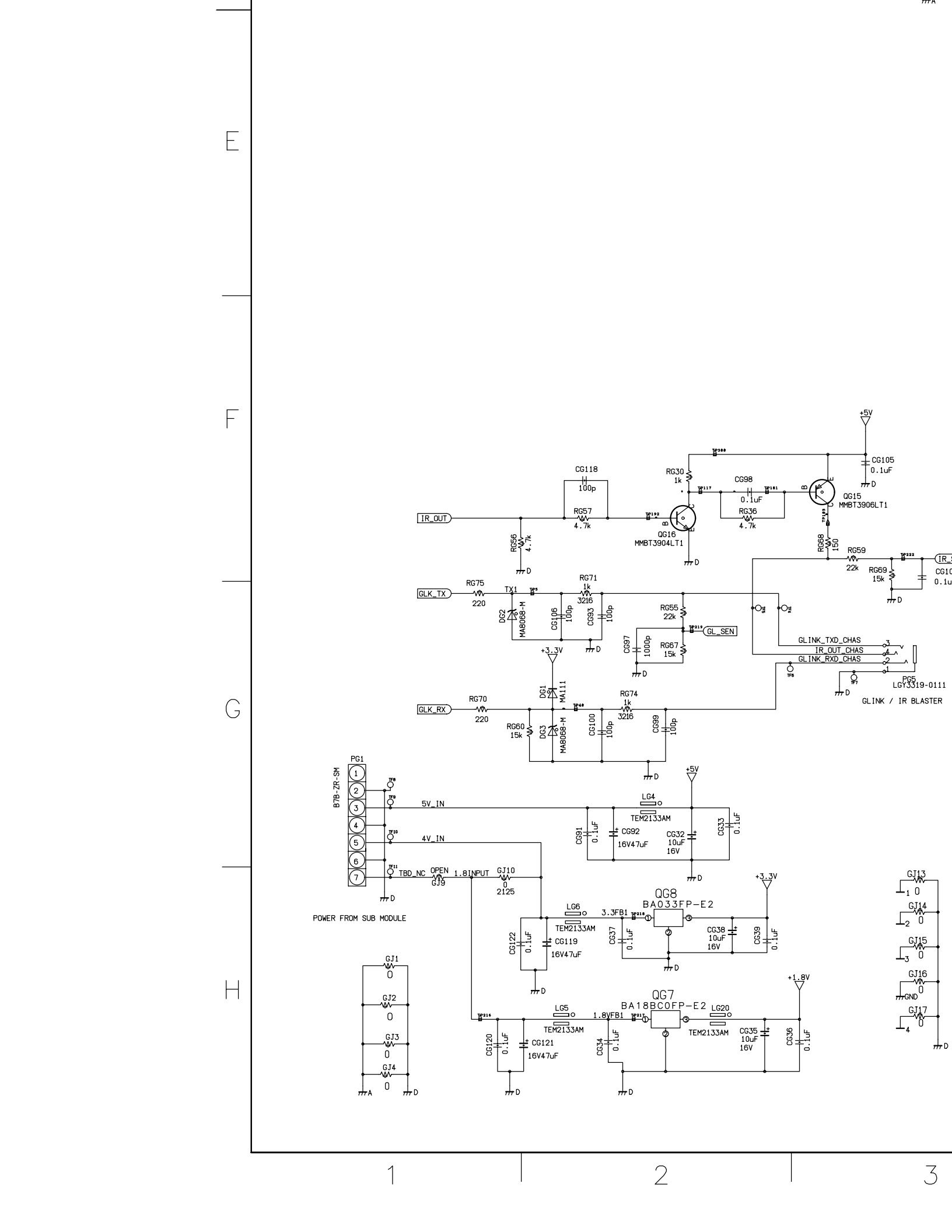
QG1

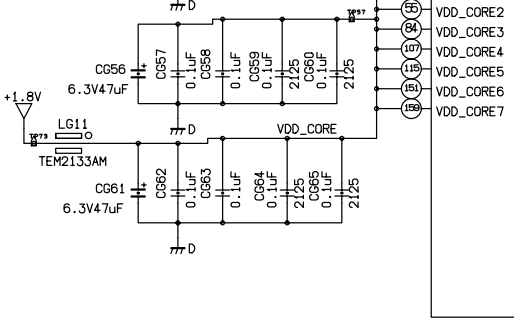
741503A

GS501

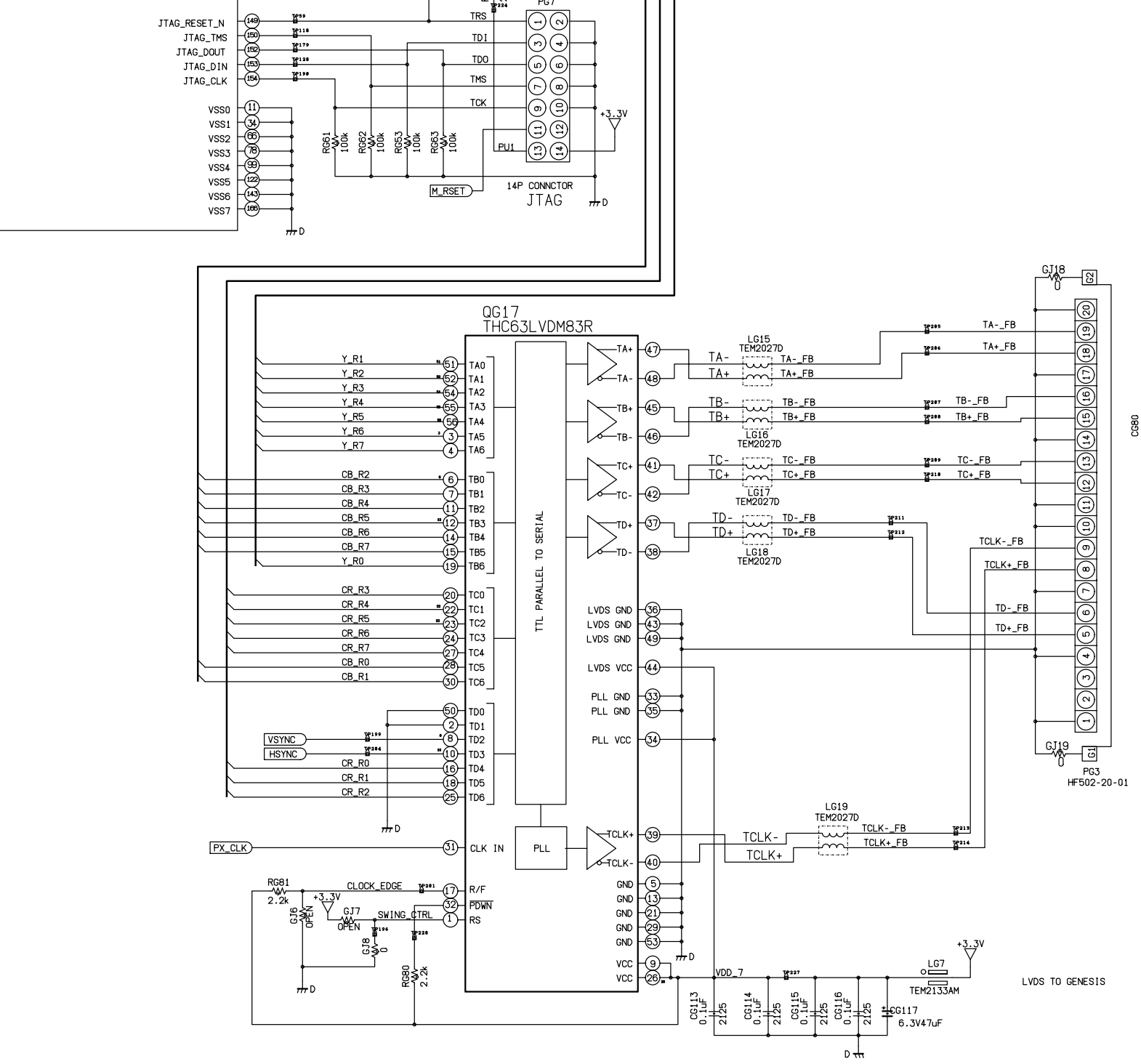



10
11
12
A
B
C
D
QG11
AM29LV320MB-120EI
QG12
IS42S16400-7T
+3.3V
LG14
TEM2133AM
VDD_4
CG86
6.3V47uF
LG13
VDD_6
CG76
6.3V47uF
RG46
10k
MWE_N
POR_N
OE_N
MCS_N
DQM3
SDCK_T
SDCLKE
DQM2
SDCS_N


+5V
CG105
0.1uF
RG30
1k
CG98
0.1uF
QG15
MMBT3906LT1
CG118
100p
IR_OUT
RG57
4.7k
RG56
4.7k
QG16
MMBT3904LT1
RG36
4.7k
RG68
150
RG59
22k
RG69
15k
GLK_TX
RG75
220
TX1
RG71
1k
3216
DG2
MA8068-M
CG106
100p
CG93
100p
RG55
22k
GL_SEN
CG97
1000p
RG67
15k
GLINK_TXD_CHAS
IR_OUT_CHAS
GLINK_RXD_CHAS
PG5
LGY3319-0111
GLINK / IR BLASTER
+3.3V
DG1
MA111
GLK_RX
RG70
220
RG74
1k
3216
RG60
15k
DG3
MA8068-M
CG100
100p
CG99
100p
PG1
B7B-ZR-SM
5V_IN
4V_IN
TBD_NC
OPEN
GJ9
1.8INPUT
GJ10
0
2125
POWER FROM SUB MODULE
LG4
TEM2133AM
CG91
0.1uF
CG92
16V47uF
CG32
10uF
16V
CG33
0.1uF
QG8
BA033FP-E2
3.3FB1
LG6
TEM2133AM
CG122
0.1uF
CG119
16V47uF
CG37
0.1uF
CG38
10uF
16V
CG39
0.1uF
GJ1
GJ2
GJ3
GJ4
QG7
BA18BC0FP-E2
1.8VFB1
LG5
TEM2133AM
LG20
TEM2133AM
CG120
0.1uF
CG121
16V47uF
CG34
0.1uF
CG35
10uF
16V
CG36
0.1uF
+1.8V
GJ13
GJ14
GJ15
GJ16
GND
GJ17

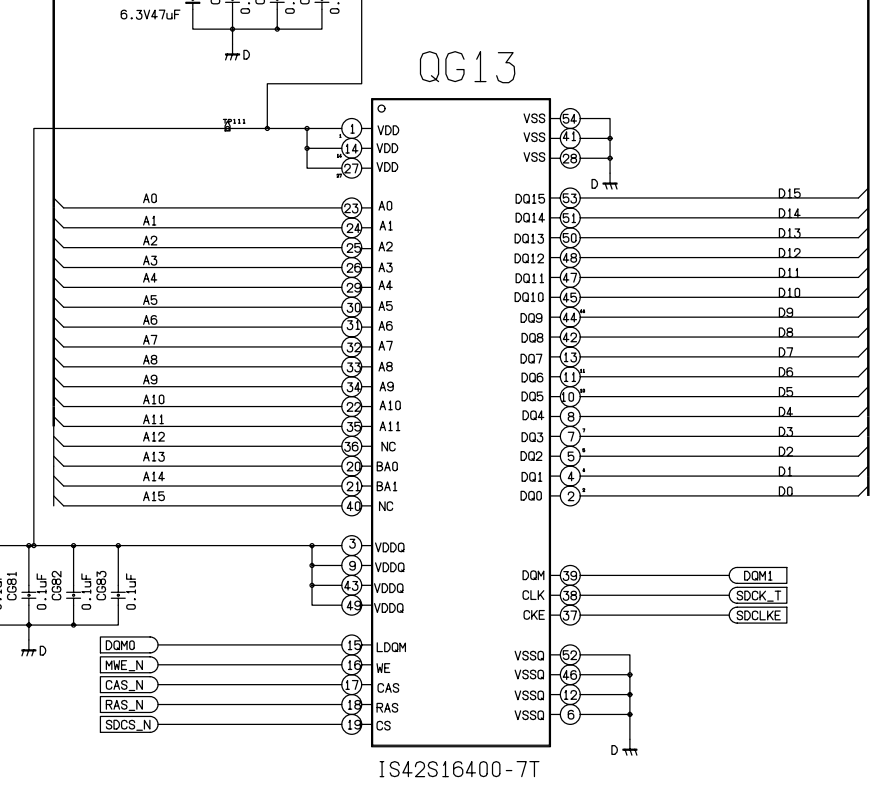


1. ON SDCK_T AND SDCK_



NOTES:

K_R, ADD GROUND TRACE ON BOTH SIDES.



Assembly Number
23599710

51HX93/57HX93/65HX93
Gemstar

E F G H

10 11 12